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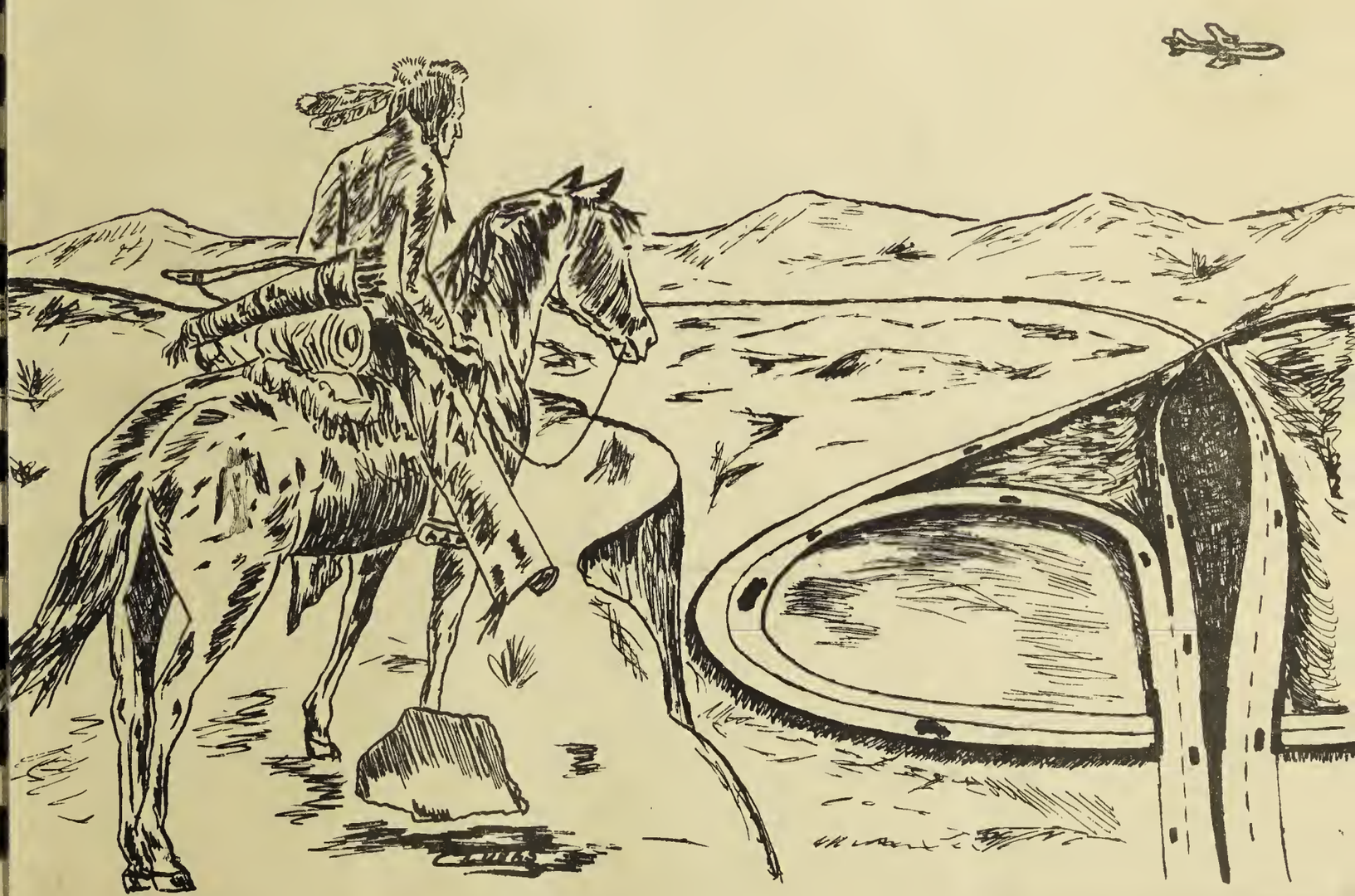

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T R A N S P O R T A T I O N

S T U D Y

M O N T A N A

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT - HELENA, MONTANA

MARCH, 1972

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I-1 INTRODUCTION

Montana is unique: Because Montana is yet unspoiled by large amounts of unguided development--often characteristic of less sparsely populated areas--the opportunity to direct the State's growth still remains.

One of the most influential elements directing the growth of Montana is transportation. Through the planning and creation of a total transportation system, Montana will be able to help shape land use, urbanization, commercial development, industrial development, recreation, and open space.

As Montana is unique, however, so are the State's transportation problems. Boasting a land area of 147,000 square miles, Montana residents must maintain a complex transportation network, including 76,000 miles of public roadway, 116 airports, and nearly 5000 miles of railway. With a population of 694,000 persons, the tax base required to support such a system is less than adequate. This is evidenced in the fact that in Montana there are 11 miles of highway for each 100 persons, compared to a national average of 1.8 miles per 100 persons. Planning is therefore essential to assure that every dollar spent on transportation in Montana is used in the most beneficial manner. It is in this context that agencies involved in transportation policy and planning in Montana assisted the U.S. Department of Transportation in the preparation of the National Transportation Study.

The Executive Director of the Montana State Department of Planning and Economic Development was designated by the Governor to develop needs estimates and to prepare capital improvements programs for all modes of transportation within the

State.

In preparing these estimates, the Department of Planning and Economic Development obtained the assistance of modal transportation agencies, including the Montana Highway Commission and the Montana Aeronautics Commission. Assistance was also enlisted from the urbanized areas of Billings, Great Falls, and Missoula in developing their own programs.

Although time did not allow the development of needs through an in-depth transportation planning process, this study does present a surface look at Montana's transportation needs and a realistic statement of transportation policy through capital improvements programming.

I-2 NEEDS ESTIMATES

The Montana Department of Planning and Economic Development worked with state and local modal agencies, urban planning groups, and others, in determining transportation needs throughout the State. In order to view these individual needs in light of all other Montana needs and to coordinate needs estimates with the development of a statewide comprehensive plan, state growth centers were identified in each of 12 multi-county planning and development districts and future transportation needs were assessed on the basis of providing a primary level of service to these centers. Transportation needs in other areas were determined in light of providing a secondary level of service based on accessibility to, or isolation from, a growth center hub.

In order that a visual assessment of existing facilities be made, a composite map was prepared which included statewide multi-county planning and development districts; highway financial districts; 1990 "small urban" and "urbanized" areas; major highway routes; and air carrier airports.

State modal agencies and urban planning groups were requested by the Montana Department of Planning and Economic Development to estimate future travel based on existing and projected population estimates as determined for the Highway Needs Study. These groups were asked to use these travel estimates to determine facility needs based on existing state or local standards.

Because the time available to complete this study was limited, it became necessary to rely heavily on existing data, plans, and travel estimates in the preparation of these needs estimates. Transportation and transit studies of major communities; studies completed on a state level for highways; and airport studies and comprehensive plans of state and local agencies, all served as sources of travel and needs information. Montana has been fortunate in that many transportation studies have been prepared since 1967 and have projected needs to 1990, providing a good base for extrapolation. Needs estimates extracted from these individual sources, if not available for the requested time periods (1970; 1970-1980; 1980-1990), were revised to correspond to these periods.

The following section contains the basis for needs estimates under each program contained in Manuals B, C, and D:

A. MANUAL B

The Planning Survey section of the Montana Highway Department developed highway needs as part of the National Highway Functional Classification and Needs Study. Needs under this program have been reported to the Department of Transportation under separate cover.

B. MANUAL C

The Montana Department of Planning and Economic Development developed needs estimates for urban mass transit in communities with a 1990 population under

50,000, and worked closely with Billings, Great Falls, and Missoula, with 1990 populations of over 50,000, in arriving at their individual estimates.

Transit studies recently completed in each of the three urbanized areas were used extensively in reporting facility needs.

A statement was made regarding the size of communities which could feasibly operate systems of mass transit in Montana. It did not seem practical that communities within the "small urban area aggregate", with populations under 20,000 in 1990, would be in need of systems of public financed mass transit. These communities will continue to rely on the automobile as their sole means of vehicular transportation. This assumption was reinforced by the absence of any recommendations relating to mass transit in comprehensive community plans for communities smaller than 20,000 population. Using this population criterion, seven Montana communities were included in needs determinations. These communities and their respective projected 1990 populations follow:

URBANIZED AREAS	1990 POPULATIONS
Billings	107,000
Great Falls	102,000
Missoula,	77,000
OTHER AREAS REPORTING MASS TRANSIT NEEDS	
Butte	41,500
Helena	35,000
Bozeman	32,000
Kalispell	25,000

1. BILLINGS

a. Billings - Mass Transit Needs

Needs reported for mass transit in the Billings metropolitan area were determined in the Transit Study for Billings, Montana, prepared for the Montana Highway Commission and Billings City-County Planning Board in 1969. Needs reported in this study, and subsequently reported on Form C-20, were to work toward the stated objective of "providing a level of transit service which would adequately support the economic and social welfare of the area, attracting increasing patronage and expanding with the community."

This objective will be served under a three-phase plan corresponding to the three "needs" periods for which transit information has been requested under Manual C in Form C-20.

1. Needs as of 1 January 1970

Needs reported for this period will be those necessary to achieve a level of service required to serve only those people dependent upon public transportation and of least expense to the community. Five bus routes are planned under this system, offering one-way service. The routes traverse the Billings area, offering one-quarter mile walking distance service in generalized corridors. Five routes would be established: four operating on 30-minute intervals between the hours of 6:30 a.m. and 10:30 a.m., and 2:30 p.m. until 5:00 p.m., except Sundays, during which no service would be provided. Hourly service would be offered during the remainder of the mid-day and until 7:00 p.m. One other route would be established to the city center on a 15-minute schedule throughout the entire day, beginning at 6:30 a.m., and terminating at 7:30 p.m. It has been estimated that a total of 194,800 miles would be covered annually.

Condition of the rolling stock and facilities of the existing transit company in Billings are such that efforts to rehabilitate are not feasible. Purchase of new equipment has therefore been assumed under current needs estimates. Six 33-passenger buses are now needed, which will conform to the state passenger coach requirements and equipped for Montana climatical conditions. An estimated 1967 cost of each vehicle would be $15,000, based on the Billings Transit Feasibility Study; however, this was adjusted according to Table A1 in D.O.T. Cost Estimate Guide, to $24,000. A service vehicle will also be required at an estimated cost of $3,000. A garage, office, and maintenance facility will also be required at a cost of $109,000.

Needs for January 1, 1970, consist of the following:

	1969 costs
1. Six new buses	$144,000
2. Fare boxes	5,000
3. Stop signing and marking	8,500
4. Garage and maintenance facilities	114,500
5. Service vehicle	3,000
	$245,000

Assuming the above level of service, patronage in 1990 has been estimated at 1,053 passengers for an average weekday. This ridership would produce an annual revenue of $70,032. Proposed passenger fares to produce this revenue would be established at $.25 for adults and $.15 for children. Revenues from advertising should produce approximately $1,500 annually. Probable operating expenses have been estimated at $111,036 annually.

Assuming future expansion of service in the Billings area, the garage and maintenance facility proposed will be capable of servicing and storing 13 units.

This is therefore indicated in the 1970 needs column as an immediate and non-recurring capital cost item.

2. Needs 1 January 1970 to 1 January 1980

Needs reported for this period will include improvements necessary to serve an expanded segment of the population and offer improved levels of service attracting a larger percentage of transit riders. These improvements should, by 1980, offer a one-directional service which will traverse major corridors with headways of 20 minutes during peak hour conditions. During mid-day and off-peak hours, 30 minute headways would be possible.

In order to bring the 1970 level of service up to 1980 standards, six additional buses will be required at a cost of $144,000, and six additional fare boxes will be needed at a cost of $4,800. Signing and marking will cost $1,500, and to replace service vehicle, $3,000. Potential patronage is expected to increase by 1980, due to added service levels and route coverage. If maintained, the 1980 service level would produce approximately 1,985 passengers on an average weekday in 1990. This number of transit orders should produce a revenue of $113,926 at the same fare structure assumed before. Advertising revenues should produce $2,500 annually under this expanded system. Operating costs would be expected to increase to $242,580 annually, based on current price and wage levels.

3. Needs 1 January 1980 to 1 January 1990

The principal objective in this time-period will be to provide rapid accessibility to the central business district and employment centers. A separate transit vehicle would be assigned to each of eight neighborhood service areas. Headways will decrease to about 30 minutes from 20 minutes offered in the preceding 10-year period, due to expanded service areas.

Thirteen buses will be required to serve the proposed 1990 system. One new bus will be required to expand the system, and a program must be undertaken during the period from 1980 to 1990 to begin to replace buses that have come to the end of their service period. It is anticipated that six old buses would be replaced with new ones. A new service vehicle would also be needed during this period. Capital costs of the above items are as follows:

1 bus (expansion of system)	$ 24,000
6 buses (expansion of system)	144,000
1 fare box (new)	800
1 service vehicle (replacement)	3,000
signing and marking	500

Patronage is expected to increase to a 1990 service level of 1,961 persons on an average weekday, producing an annual revenue of $133,552. Revenues from advertising should total about $2,500 annually.

Probable operating costs should approximate $228,610.

b. Billings Parking Needs

Need for parking facilities within the Billings core area were arrived at in the Billings, Montana, Central Area Study, Phase II, and in the 1964 Billings Urban Transportation Study. The Billings Central Area Plan is based on a circulation parking concept in which a series of high-capacity, short-term parking garages, located within the inner primary retail "core", would be surrounded by a high-capacity circulation loop, which would link directly to major east-west, north-south arterials serving the central area.

Immediately outside of this core and core circulation loop would be another component of the concept: a "ring" of offices, services, and some retail commercial uses, within which a series of high-capacity, long-term parking garages would be developed, and around which an outer circulation loop would be developed--also linking with various important arterials serving the central area. The two circulation loops would circle in opposite directions involving recirculation of cars, and connections between the two loops would be created to enable this function.

The projected parking requirements for 1980 for the primary retail, office, and other commercial uses within the most intensively developed portion of the CBD will call for some 5,300 off-street parking spaces, located in multi-story structures. Of this number, some 2,900 are short-term spaces requiring location within the primary retail core--or at least 80% located in the core--with the remaining 20% located along with the long-term parking in the ring of uses surrounding the core.

The magnitude of this parking demand would create the need for several massive parking structures, or structures combined with other uses in multi-purpose buildings and the establishment of an operating authority; a validation system to provide free parking and other necessary support efforts. Municipal officials in Billings have expressed a desire to supply all needed parking in multi-story structures, thus obtaining the highest use out of premium land within the CBD. Currently, two major parking structures are being operated in downtown Billings and have proven to be economically feasible.

The following design standards have been accepted in Billings:

CRITERIA FOR PARKING GARAGES

	Acceptable	Desirable
Car spaces:		
Length	18' - 0"	19' - 0"
Width	8' - 6"	9' - 0"
Aisle width:		
90° parking	24' - 0"	26' - 0"
60° parking	18' - 0"	20' - 0"
45° parking	13' - 0"	15' - 0"
Ceiling height (clear):	6' - 8"	7' - 6"
Ramp gradient:	10%	6%
Clear outside turning path (radius):	25' 0"	28' - 0"
Lighting:		
Aisles	10 ft. -can.	15 ft. -can
Parking area	3 ft. -can.	5 ft. -can.
Number of entrances & exits:	1 ea. per 350 spaces	1 ea. per 250 spaces

1969 costs per car space in a parking structure were estimated based on land and construction costs arrived at in Billings in 1964 and increased by 5% per year to represent inflated costs. The total 1969 cost per car space would be $3,500.

It is proposed that parking structures be financed by revenue bonds and that revenue derived from these structures pay both capital and operating costs.

The needs for parking, as determined by transportation and CBD studies, and as reported on Form C-20 for Billings, are as follows:

Other Parking Garages	Number of Spaces
1 January 1970	915
1 January 1970 to 1 January 1980	4,385
1 January 1980 to 1 January 1990	5,495
Total:	10,795

2. GREAT FALLS

a. Great Falls - Mass Transit Needs

Needs for a system of mass transit to be reported under Manual C have been based on the Feasibility of Transit Service in Great Falls, Montana, 1968--a report financed under the provisions of Section 6, Urban Mass Transportation, October of 1964.

1. Needs as of 1 January, 1970

Preliminary costs of establishing a transit system in Great Falls to inaugurate service are estimated to be $271,000. Five routes have been proposed which would provide service to all parts of the community. All lines would radiate from the central business district and serve schools, hospitals, rest homes, and other major traffic generators. Buses would operate

on schedules from 7:00 a.m. to midnight, from town to Malmstrom Air Force Base; and from 7:00 a.m. to 6:30 p.m. on the other four lines. Buses would run at 30-minute intervals in the morning and evening peak periods, and hourly for the remainder of the day. On Saturdays, hourly service would be provided, with no Sunday operations. Total daily miles of transit service would approximate 800 miles. Proposed fares are expected to be $.25 for adults and $.15 for students and children.

Buses are expected to be 35-passenger coaches of a low-step variety. Equipped for Montana climatological conditions, a bus of this nature has been estimated to cost $24,000. A breakdown of capital costs for the Great Falls transit system is as follows:

Suggested Great Falls Bus System
Estimated 1969 Preliminary Costs

10 transit coaches	$240,000
Delivery charges	5,000
10 fare boxes	1,000
Shop and garage equipment	12,500
Land and buildings	90,000
Office equipment	2,500
Total capital costs:	$351,000

At the proposed fare levels, the minimum annual fare box revenue is estimated at $110,250. It is felt that extensive promotion of transit service could raise this revenue to two to three times this estimate. Operating costs for the first year of operation are expected to amount to $133,891. Approximately $5,000 additional revenue can be expected from advertising and charter service.

Comparing operating costs with prospective revenues, a deficit of approximately $19,000 annually becomes apparent. It is expected that with system promotion this deficit can be greatly reduced within a two-year period. It is expected that this deficit would be borne by the community. Legislation for obtaining subsidy funds currently exists in Montana State law:

> "City Bus Line Tax. City councils or commissions, whenever the city is not being served by a bus company or operator, or if such service is to be discontinued, or is likely to be discontinued, shall have the power to enter into contracts with independent carriers for transportation of passengers by bus within the corporate limits of such city or points beyond said limits not to exceed 8 miles. Whenever the council deems it necessary to raise money in excess of the amount now allowed by law for such purpose, the question of such additional levy, not to exceed 1-1/2 mills on all taxable property in such city, shall be submitted to a vote of the legal voters who are taxpaying freeholders, either at a regular election or at a special election. Applies to all taxable property within the city. Sections 11-1019; 11-1022, R.C.M., 1947, as amended by Chapter 120, Laws of 1957."

2. Needs 1 January 1970 to 1 January 1980

Needs estimates of 1 January, 1970, as developed for Feasibility of Transit Service in Great Falls, Montana, were based on a 1981 population of 114,000. Recent revised projections indicate that this population will not be reached until after 1990. The level of service proposed should, therefore, be adequate throughout this period and also through the period between 1980 and 1990.

3. Needs 1 January 1980 to 1 January 1990

Early in this period, the replacement of ten buses must be undertaken, since it is proposed that buses be replaced on a ten-year basis. Needs for this period will amount to $240,000, based on 1969 costs.

b. Great Falls Parking Needs

A comprehensive parking analysis of the central business district was conducted in 1961 as part of an overall transportation study of the Great Falls area. This study revealed a parking space deficiency of 515 spaces and estimated that by 1981 an additional 950 parking spaces would be required. In 1968, this transportation study was updated, and the parking situation in the central business district was re-analyzed to determine the status of parking as related to changes in supply and demand between the base year of 1961 and the update year of 1968. It was noted with interest that parking deficiency had dropped to a total of 204 spaces and had not increased as the 1961 study had projected. This trend seems to be continuing. The reason for this decreased demand is three-fold: First, rapid redevelopment of the CBD has taken place in the past ten years, resulting in demolition of many structures, clearing land for off-street parking; second, local financial institutions have developed and operate "park-and-shop" type facilities throughout the CBD, and; third, the city has enacted an off-street parking ordinance which has assured sufficient off-street parking as redevelopment has taken place.

Further redevelopment of the CBD has also taken place since the last study was completed in 1968. Projects such as the recent completion of a 200-car parking garage have helped to diminish parking needs. This trend is expected to continue through 1990.

Involvement by the private sector will preclude public sponsorship of capital parking improvements; therefore, the Great Falls urbanized area will not report a need for parking.

3. MISSOULA

a. Missoula - Mass Transit Needs

The development of mass transit needs for the Missoula area has been based on the Transit Study for Missoula, Montana, prepared in 1969. The urbanized area of Missoula has been without a transit facility for about three years. At that time, a privately-operated transit company announced their inability to continue transit service, due to lack of sufficient patronage. The above-mentioned Transit Study stated:

> "The outlook for obtaining a public mass transit facility in Missoula is not bright, due both to the apathy on the part of the larger community and the inability of the facility to pay its own way. The City has been approached several times in the past three years with proposals for obtaining a subsidized public mass transit service. To date, the position of the City has been negative toward a cash subsidy.
>
> "The rationale for this position is that it was felt that the former transit operation had good schedules, but did not generate sufficient ridership to justify service. Therefore, if any aid were to be given by the City for a transit operation, it would be in the form of purchasing such items as tires, gas, etc., which the City could obtain at less expense than a private operator."

Based on the existing population, the development of a system of urban mass transit seems unfeasible. A review of the urban transportation plan demonstrates that the automobile has been the major form of transportation. At this time, problems are not being evidenced in roadway capacities, accident rates, travel time or parking, even during peak periods.

1. Needs as of 1 January 1970

Unlike larger urban areas, Missoula, at present, does not experience conditions which would force the consideration of other than auto mode transportation. This has been affirmed by Transit Study recommendations and by general community attitudes. In light of these findings, it is difficult to forecast any strong existing demand other than to serve captive riders. Because of this, no transit needs are being reported for 1 January 1970.

2. Needs 1 January 1970 to 1 January 1980

Recently, a desire has been expressed by public officials and interested citizens to establish a system of public buses. Several factors have indicated that a need for urban mass transit will come during this period.

(1) Projected population increases bringing about a larger number of potential riders.

(2) Future population distribution indicated increases in junior and senior citizen population, bringing about a demand for transit to serve this special segment of the community.

(3) With increases in population, traffic problems will begin to be evidenced, resulting in a demand for an alternate mode of travel.

Needs to be shown for the 1970-1980 period correspond with needs as suggested by the Transit Study for Missoula, which would provide a minimum level of service to those solely dependent on public transit at minimal expense to the community. At the same time, the service is expected to facilitate movement of persons in the CBD between desired destinations and outlying terminal facilities. Lastly, it is seen as an additional means of reinforcing the large capital investment which the CBD represents, assuring that it remains a strong and viable component of the urban area.

Three transit routes offering direct two-way service were evolved. The service area of these routes was based on an assumed transit coverage of approximately one-quarter mile convenient walking distance. Fifteen-minute schedules would be maintained between 6:30 a.m., and 9:00 a.m., and between 3:30 p.m. and 5:00 p.m. Half-hour schedules would be maintained during off-peak periods until 6:00 p.m. 62,868 route miles would be operated annually. No transit service was assumed on Sunday. Two 33-passenger buses would be required. Both vehicles would be employed for peak-hour operation, with only one vehicle serving during off-peak hours. A stand-by vehicle will not be acquired during this period.

The capital outlay for this plan is shown as follows:

Two new buses ----------	$48,000
Fare boxes ----------	1,600
Zone signing and marking----------	800
TOTAL-------	$50,400

Based on this system, a future potential transit ridership of 1,950 was estimated. Of this total, it was assumed that nearly 90% would be captive riders. This ridership would produce an annual revenue of $32,136, assuming an adult fare of $.25 and a $.15 fare for children through high school. Total operating expenses for the first year of operation were estimated at $37,720. This would produce a deficit of $5,584. As ridership improved, this figure would decline.

It has been proposed that this system be municipally owned and leased to a joint transit and parking association. Capital costs would be financed in part through general obligation bonds and a permissive levy would be assessed, subject to voter approval to subsidize operational costs.

3. Needs 1 January 1980 to 1 January 1990

If the system of mass transit, as previously proposed, is implemented in the mid-1970's, replacement of buses will be necessary during this period. Also proposed early in this period is the addition to the system of a stand-by bus. 1969 costs of these vehicles have been determined using Department of Transportation cost estimates.

Replacement buses: $48,000 Additional bus: $24,000

b. Missoula - Parking Needs

Forecasted terminal facility needs for the recommended transportation plan total approximately 2,100 parking spaces, of which 660 are designated as short-term and 1,500 long-term. These estimates were the product of a spatial location analysis regarding parking supply and demand characteristics. Both are based on the average distance which persons are willing to

walk for a particular trip purpose. Short-term parking is designed to serve the high intensity retail commercial area, and the long-term--the business and office facilities.

Capital costs necessary to implement this parking program total an expenditure of $3,537,000 over a 20-year period. The short-term parking program is estimated to cost approximately $1,118 per space to $3,000 per space for parking structures. Yearly expenditures on this program are expected to average $53,000. Long-term parking needs, due to peripheral locations and lower land values, are estimated to cost approximately one-half less than short-term spaces--or $694 per vehicle space. Yearly capital expenditures on this portion of the program are estimated at approximately $73,000.

Yearly capital requirements for the entire terminal facilities system are estimated at approximately $126,000.

4. SMALL URBAN AREA AGGREGATE

a. Small Urban Aggregate - Mass Transit

As has been stated in the previous section, systems of mass transit would not be practical or feasible in Montana communities of under 20,000 people. In Montana, seven communities are expected to have populations greater than 20,000 by 1990. Three of these communities qualify as "urbanized areas" and will report needs on an individual community basis. This leaves four communities in the small urban area aggregate for which mass transit needs

will be shown.

Small Urban Area	1990 Population	
Butte	41,500	31%
Helena	35,000	26%
Bozeman	32,000	24%
Kalispell	25,000	19%
Total----------	133,500	100%

In arriving at needs estimates for this aggregate of communities, each community was contacted to determine existing and proposed transit systems, levels of service, and local policy relating to mass transit. Two communities were then selected which were representative of the entire group and needs estimates for these communities were expanded to the universe of the aggregate population.

The communities selected as a sample were Helena and Kalispell. The rationale behind this selection was that future transit needs estimates had previously been developed for these two communities. The populations of Helena and Kalispell represent approximately 45% of the population of these four communities. A factor of 2.22 was used to expand all data to a 1990 population of 133,500.

Following is a description of specific needs and proposed service for Helena and Kalispell:

1. HELENA --

The City of Helena does not presently have a public transit service other than the local taxi operation and three senior citizen buses operated by a Development Council. These three buses presently serve the needs of active senior citizens. Due to the specialized use of these vehicles,

maximum usage cannot be obtained.

The last public bus service in Helena was terminated in 1965.

Helena is presently involved in an Urban Renewal project which, coupled with an already existing housing shortage, has caused concentrated development of low-income housing in areas separated from the CBD. These new developments present new ridership potentials for the proposed system.

The preliminary investigation of ridership potential indicates that there are groups of people who have no means of transportation other than the local taxi service. The socio-economic status of these groups indicates the need for a second level of public transport service offering a lower level of service at a reduced price.

A demonstration project has recently been approved which will test the following concepts:

(a) A small city can support a second level public transit system on a break-even basis if the system is oriented to serve specific groups of potential riders who are presently without a mode of transportation within their economic means. This concept could be applied nationally in other small cities or in neighborhoods within major metropolitan areas.

(b) Within all small cities or neighborhoods, there are groups of people who have no means of transportation which they feel they can afford. By serving these groups and providing new mobility, the community can increase their social and economic opportunities.

(c) Advertising through the news media will be monitored to determine the most effective means of reaching potential riders. A personal

contact, door-to-door advertising method will be tested along the semi-fixed routes.

(d) By combining under one operating agency both levels of public transport service, the existing taxi operation can be maintained as well as a new mode of lower cost public transport.

(e) A high fare can be charged relative to conventional transit operations providing the local alternate mode of transport has a high fare compared to the second level of service and provided a higher level of service than conventional fixed route transit is offered.

(f) The increased mobility of the groups served will be measured in terms of new trip activity. This new mobility will be related to the fare differential of taxi vs bus.

(g) The shift in ridership from taxi to bus will be determined.

(h) The concept of orienting the transit operation to off-peak rather than peak hour ridership will be tested. Equipment requirements will be minimized while maximum utilization will be attained. Peak hour service will be provided to specific groups on a subscription or contract basis.

(i) The evening use of buses on a contract basis to serve meetings of social and fraternal groups will be tested.

Initially, the operation would proceed as follows:

(a) A passenger desiring pick-up who lives within two blocks of the route would call in to the dispatcher a minimum of one-half hour before the bus departs from a beginning point.

(b) Dispatcher either tells passenger that the pick-up schedule is full (initially, a maximum of five front-door pick-ups per run would be made), and that the passenger will have to walk to the scheduled route or that the front door pick-up can be made.

(c) Driver picks up dispatch sheet showing scheduled pick-up points on route.

(d) Bus covers route, making front door pick-ups, stopping along the route to pick up hailing passengers.

(e) Routes are established to allow 30-minute service by overlapping the east and west runs.

Two 25-passenger radio-equipped buses would operate on a 30-minute headway during the peak trip-making periods, 7:00 a.m. to 9:00 a.m., and 4:00 p.m. to 6:30 p.m.. During the remainder of the day--9:00 a.m. to 4:00 p.m.--the buses would operate on a demand responsive, semi-fixed route basis. In the evening, the buses would be available to social and fraternal groups on a contract basis.

The proposed system would be owned by the city, although the operation and management would be subcontracted to the local taxi company.

It is proposed that this operation would reach a self-supporting level about 30 months after operations began, and after that time would begin to show a profit.

Revenues are based on a $.40 fare, beginning with a ridership of only those captive riders who are now participating in the Community Action programs, with ridership increasing to an estimated 410 passengers per day at the end of 30 months.

(1) Needs as of 1 January 1970

Needs to be reported for this period consist of capital costs necessary to implement the above program, including the following:

Two 20-25 passenger buses --------	$30,000
Two Two-way radios ----------	1,800
Total----------	$31,800

(2) Needs 1 January 1970 to 1 January 1980

Needs to be reported during this period are based on expansion of this system to include additional service areas within the community. It is felt that two additional radio-equipped buses would be needed late in this period. One of these buses would serve as a back-up. Capital equipment costs for this period are as follows:

Two additional 20-25 passenger buses ----	$30,000
Two additional two-way radios ----------	1,800
TOTAL:----	$31,800

(3) Needs 1 January 1980 to 1 January 1990

Needs for this period include replacement items only. Since all buses are scheduled to be replaced on a ten-year basis, all buses must be replaced sometime during this time period. The 1969 cost of replacing four buses is $60,000. It is assumed that replacement of radios would not be necessary during this last needs period.

TABLE I

ESTIMATED PROJECT COSTS

Equipment:

Two 20-25 passenger buses	$30,000
Two Two-way radios	1,800
Total equipment cost	$31,800

Operating Costs:

License and city operating tax -4% equip.	$1,270
Insurance	1,600
Filing costs (MRC)	80
Maintenance .070/mi. (71,000 mi.)	4,970
Fuel--Gas @ 27¢ gal. -8 mi. gal. (71,000 mi.)	2,400
Oil--30¢ qt.-8qts. wk.+transmission	380
Total operating cost	$10,700

Management Costs:

Manager--$800 mo.	$9,600
Dispatcher--$400 mo.	4,800
Drivers--$2 hr, 9hrs. day, 312 days, 2 units	11,200
Bookkeeper--$2 hr. 20 hr. wk.	2,160
Office supplies	600
Advertising	1,300
Employee benefits	1,460
Utilities--$150 mo.	1,800
Vehicle storage	2,400
Misc.	1,500
Total Management costs	$36,820

Demonstration Costs:

Data collection, analysis & reporting; @ $500 mo. ----------	$6,000
Audit (professional certified)----------	400
Total demonstration costs----------	$6,400

First year total----------	$85,720
Second year total---------	53,920
Third year total----------	53,920
Total project cost------	$193,560

2. KALISPELL

Kalispell has indicated a need for urban mass transit. They propose three routes to be established after 1980. Two buses would be needed to operate on these routes and an additional bus would be needed as a back-up. These would be of the 12-passenger mini-bus design and would cost around $5,000 each. These buses would be scheduled as follows:

6:30 a.m. to 9:00 a.m.	½ hour headways
9:00 a.m. to 3:00 p.m.	1 hour headways
3:30 p.m. to 6:00 p.m.	½ hour headways

These buses are not expected to require fare boxes. Signing and marking necessary to initiate operation was estimated at $1,000.

Cost of operating this system is expected to be between $.40 and $.60 per mile, or $31,100 per year at $.40 per mile and $46,650 per year at .$60 per mile. At $.40 per mile, 600 riders per day would be required to meet operating costs, and 400 riders per day at $.60 per mile. This is based on a 312-day year and a six-day week. Municipal operation of this system is proposed.

b. Small Urban Aggregate - Parking Needs

In determining parking needs for the Small Urban Area Aggregate, communities within this grouping were analyzed according to projected growth. Comprehensive plans for each community were referenced and community officials were contacted.

Eleven communities in this aggregate are expected to have populations ranging from 5,000 to 20,000 according to 1990 population estimates made in accordance with Manual B.

Five of these 11 communities are expected to lose population by 1990. On this basis, these five communities have indicated no additional parking needs. Four of the 11 communities will expand no more than 15%. Little or no public parking need was shown for these smaller communities. In most cases, parking needs will be met by business and commercial establishments on either an individual or a park-and-shop basis, or by private land developers whereby the communities would install meters, perform maintenance, and pay back to the land owner a percentage of renewal.

The communities of Dillon and Libby are the only communities in the Small Urban Area Aggregate showing substantial growth. These two communities will need publicly subsidized parking before 1990.

Based on projections, the following additional publicly sponsored parking spaces will be necessary for these two communities:

1970:	46 additional spaces
1970-1980:	154 additional spaces
1980-1990:	236 additional spaces

Because parking needs differ with community size, parking needs of the four larger communities in this aggregate with 1990 populations between 20,000 and 50,000 have been determined separately from the remainder of the aggregate. Needs for this group of larger communities have been compiled on the basis of needs present for Helena and Kalispell and expanded by 2.22 to include Butte and Bozeman, as in the case of mass transit needs. Needs estimates of this grouping were included with the figures for Dillon and Libby to comprise parking needs for the Small Urban Area Aggregate.

Parking supply and demand in the Helena CBD presently are in a state of fluctuation due to an extensive downtown demolition-renewal project. A recent analysis of parking in Helena, however, indicated a 1970 need for 400 additional parking spaces. Because of future projected physical and economic growth of the CBD, and because of the elimination of some established parking areas through Urban Renewal, an additional 1,600 spaces will be required by 1980. These spaces will be supplied in two ways:

1. Construction of new commercial or office complexes will increase supply through an existing off-street parking ordinance.

2. A parking authority has been formed for the development of parking in the CBD. It is proposed that a parking SID be formed. The costs of supplying parking would be assessed against CBD properties based on a distance-usage formula. It is proposed that all parking be free to the public. A 400-space parking structure is proposed to be developed in this way, with the remainder of the required 2,000 spaces to be supplied as surface parking.

The cost to develop a parking space in this 400-space structure is $2,700. The cost of each surface space is estimated at $900.

No parking needs will be shown after 1980 as it is expected that all parking will be supplied before this time.

Parking needs for Kalispell, as determined by the Kalispell area comprehensive plan, amount to 213 additional lot spaces to be publicly sponsored, at a cost of $250,000 between 1970 and 1980. Between 1980 and 1990, 300 additional spaces are proposed in a municipal parking structure. Revenue from this facility is expected to be sufficient to pay capital costs. The City of Kalispell estimates the cost of this facility at $1,077,000.

C. MANUAL D

The determination of needs for air terminal facilities was carried out as a joint effort between the Montana Aeronautics Commission, the Montana Department of Planning and Economic Development, and managers of individual airports throughout the State. The Department of Planning and Economic Development also worked closely with the three urbanized areas in determining airport needs.

Due to the large number of smaller airports in Montana, the decision was made to compile individual needs information only for air carrier airports and to provide the same information for smaller airports on an aggregate basis. Non-air carrier airports were combined into four aggregates on the basis of growth potential. A fifth aggregate was added to arrive at needs in regard to heliports. The following groupings resulted:

Air Carrier Airports: Billings Bozeman Browning Butte Glasgow Glendive Great Falls Havre Helena Kalispell Lewistown Miles City Missoula Sidney West Yellowstone Wolf Point.

1. AGGREGATE I

This aggregate consists of General Aviation Airports whose projected use and trade area population growth will necessitate an air carrier airport relatively soon after 1990: Conrad - Dillon - Libby - Laurel - Livingston.

2. AGGRETATE II

General Aviation Airports with high growth and use, but the trade area does not facilitate an air carrier airport: Anaconda - Broadus - Eureka - Hamilton - Kalispell - Philipsburg - Polson.

3. AGGREGATE III

General Aviation Airports with average growth and use supporting under 5,000 population:

Baker	Big Timber	Bridger	Chester	Chinook
Choteau	Circle	Columbus	Culbertson	Cut Bank
Deer Lodge	Ennis	Forsyth	Ft. Benton	Gardiner
Geraldine	Hardin	Harlem	Harlowton	Hot Springs
Jordan	Lincoln	Malta	Plentywood	Red Lodge
Roundup	Scobey	Shelby	Superior	Thompson Falls
Twin Bridges	Valier	White Sulphur Springs		

4. AGGREGATE IV

General Aviation Airports with low growth and use serving communities under 5,000 population:

Ashland	Augusta	Babb	Benchmark	Big Sandy
Boulder	Browning	Chinook	Clinton	Condon
Dell	Denton	Drummond	Dutton	Ekalaka
Fairfield	Fairview	Fortine	Ft. Peck	Ft. Smith

Hinsdale	Hogeland	Hysham	Jackson	Lavina
Meadow Creek	Medicine Lake	Morgan	Opheim	Plains
Pole Bridge	Poplar	Richey	Ronan	Ryegate
St. Ignatius	Schafer	Seeley Lake	Spotted Bear	Stanford
Stevensville	Sunburst	Sweetgrass	Terry	Three Forks
Tiber Dam	Townsend	Troy	Turner	Whitefish
Willow Creek	Wilsall	Winifred	Wisdom	Wolf Creek
Worden				

5. AGGREGATE V

Heliports: These are strictly single use facilities, such as those for hospital emergency, etc.

Cut Bank (Memorial Hospital)

Deer Lodge (State Prison)

Galen (State Hospital)

Great Falls (Deaconess Hospital)

Kalispell (General Hospital)

Individual airport data was collected for each air carrier airport and for several representative airports within each aggregate. Letters were forwarded to airport managers and airport boards of each airport, along with questionnaires to be answered during subsequent interviews. A copy of this questionnaire is contained in the Appendix on page

Interviews were then conducted with airport managers, and needs estimates were collected. Projected aircraft operations and O & D predictions made in 1968 for the Montana State Air Survey, served as a basis on which individual managers and boards of air carrier airports could make future needs estimates. These estimates were then compared with needs, as outlined in the 1969-1970 National

Airport Plan. Costs were adjusted by the Montana Department of Planning and Economic Development, with the assistance of an airport engineering firm. Needs and costs were also checked for consistency by the Montana Aeronautics Commission before entry into the D-2 forms. Summary needs data and costs, as submitted on Forms D-2 and D-20, are contained in the Appendix on pages 83-100.

6. SMALL URBAN AREA AGGREGATE

In summarizing needs and cost data onto Form D-20 for the "Small Urban Area Aggregate", representative airports were selected in Aggregate I and needs data of these airports were expanded to represent the total aggregate. Aggregate I needs were added to Air Carrier Airport needs, and needs for one airport (Anaconda) in Aggregate II.

1-2.1 GOALS AND OBJECTIVES USED IN DEVELOPING NEEDS ESTIMATES

The formulation of a set of goals and objectives served as a foundation for the preparation of Montana's portion of the National Transportation Study.

The first step in this formulation was to contact various State agencies to determine if these agencies had previously accepted sets of goals. A review of these goals was then undertaken, along with a review of transportation policy on both the state and local levels. Listings of goals and objectives were then prepared for review by the Montana Transportation Policy Committee, "urbanized areas", and State modal agencies. Included in these listings were sample goals and objectives of other Western States. These agencies were asked to list any goal, objective or policy which they felt had been left out, and to freely eliminate any which they felt were not appropriate or realistic.

Final listings of transportation goals and objectives were tabulated by the Montana State Department of Planning and Economic Development, and served as guidelines in the preparation of needs estimates.

Although not all agencies were in complete agreement on each individual objective, there was general concurrence that these goals would serve as a basis for estimating Montana's transportation needs.

A. TRANSPORTATION GOALS AND OBJECTIVES

1. GENERAL:

Provide throughout Montana coordinated systems of transportation designed to satisfy service requirements and to facilitate efficient and economic movement of people and goods.

a. Prepare and maintain a comprehensive State Transportation Plan.

b. Harmonize the impact of highway and other transportation systems with the environment.

c. Encourage a regional approach to transportation planning, based on a "growth center" concept.

d. Utilize multi-modal transportation corridors where possible to improve efficiency and economy in land use.

e. Promote a system of freight and passenger transportation, assuring availability of the highest degree of service possible.

f. Provide alternative services by more than one means of transportation wherever feasible.

g. Place emphasis on various social strata, disadvantaged, and non-drivers, in developing transportation systems.

h. Promote the support of transportation facilities from user charges.

i. Consider isolation as a factor in determining transportation facility improvement priorities.

j. Improve safety, convenience, and comfort, in all transportation systems.

2. URBANIZED AREAS

Provide an adequate system of transportation--public and private--available to all individuals.

a. Coordinate community planning with transportation planning to provide aesthetic, as well as utilitarian, approaches to satisfy transportation and community requirements.

b. Encourage greater community involvement in coordinated transportation and community requirements.

c. Provide transportation facilities for those persons not now serviced by automobiles or other modes of transportation.

d. Provide transportation facilities not only for speed and efficiency of travel, but also for convenience and enjoyment in shopping, school, cultural, and business pursuits; leisure time travel; pedestrian, and bicycle travel.

e. Develop integrated systems of public and private transportation.

3. HIGHWAYS

Develop and maintain a system of highways which will serve the needs of all State residents and which will contribute to the growth and development of local communities, our State, and Nation.

a. Promote a complete and efficient highway network throughout Montana.

1. Propose adjustments to current federal aid highway systems according to functional classification.

2. Road needs studies, based on sound engineering principles, should be the bases for orderly construction, relocation, maintenance, planning, and programming.

3. Encourage greater application of joint development multiple land use opportunities.

4. Work toward and maintain an equitable distribution of state and federal highway funds between rural and urban areas, and between classified systems.

5. Establish and practice a system of advance acquisition of Right-of-Way.

6. Expand efforts to promote greater utilization of bus systems for public transportation in larger communities, with the aim of reducing roadway congestion and parking demand; in turn, reducing the expenditure of highway dollars.

7. Provide high levels of highway service between existing and planned "growth centers."

b. Improve efficiency and safety of highway travel.

1. Continue analysis of highway accidents as a means of establishing improvement priorities.

2. Eliminate high-accident rate and injury-rate locations.

3. Promote TOPICS planning and construction in communities throughout Montana.

c. Work toward the improvement of environmental quality in highway location and design.

1. Encourage use of interdisciplinary approach to highway location and design processes.

2. Encourage the provision of additional roadside rest areas along controlled access and scenic roadways.

3. Assure positive erosion control measures in highway design and construction.

4. Increase available parkland through development of mini-parks from supplementary public ROW.

4. AIR TRANSPORTATION

Encourage, foster, and assist in the development of aeronautics in Montana and to encourage the establishment of airports and other air navigation facilities.

a. To develop a statewide system of airports, encouraging the flow of private capital into aviation facilities, cooperating with the assisting political subdivisions in the development and encouragement of aeronautics.

b. Develop a framework within which the State can assist in obtaining improved air transportation services.

1. Prepare a statewide plan for the development of airports and related facilities as an element of an integrated plan for all forms of transportation within the State.

2. Promote uniformity of laws and regulations pertaining to aeronautics laws and regulations.

3. The aviation statutes of the State of Montana charge the Montana Aeronautics Commission with the responsibility to encourage, foster, and assist in the development of aeronautics in Montana, and to encourage the establishment of airports and other air navigation facilities. A most useful tool in pursuing these objectives with efficiency and logic is an Airport System Plan

which will realistically provide for the aviation needs of our State and region. To be practical, this planning effort should not only deal with Montana as an integral part of a National Transportation System, but also address itself to factors which may be unique to the State; i.e., the vast expanses and isolation of the State of Montana make air travel a very important means of transportation, while at the same time, sparse population and related factors have resulted in the ineligibility of many state airports for federal aid for development.

Additionally, at a time of increasing interest in airline travel, our State is experiencing a continuing derogation of airline service to most communities.

In view of the above, the overall objectives of this planning effort should be:

(a) To provide for the orderly and timely development of a system of airports adequate to meet the aeronautical and air transportation needs of the State and the Nation.

(b) To provide a framework of airport development programs consistent with short, intermediate, and long-range needs.

(c) To assure compatibility with the content, format, standards, and criteria of the National Airport System Plan, in order that applicable portions may be integrated into that Plan.

(d) To provide a basis for coordination of airport plans with the planning of state, metropolitan, and urban agencies in the areas of transportation, land use, economic development, and resource utilization, and for coordination with airport system plans in adjoining states.

(e) To inform local, state, and national political and individual interests of aviation facility requirements, and to bring an awareness to the general public of the need for a systems approach to airport planning and development.

(f) To make possible long-range coordination of airport development air navigation facilities, air space use, and air traffic control procedures.

(g) To provide a document for use at the local level in preliminary planning, master planning, detail planning, and estimating costs of development of airports.

(h) To identify the general locations of all airports, by type and size, that will be required to make air transportation reasonably accessible to every community in the State.

c. Foster and promote safety in aeronautics.

d. Encourage the development of private flying, and the general use of air transportation.

e. Coordinate airport planning and development with comprehensive community planning.

5. URBAN MASS TRANSIT

Encourage the provision of a system of intra-city transportation to those persons who have no other means of transportation at their disposal.

a. Provide transportation designed particularly for the aged, youngsters, non-drivers, and those of limited income, and for which a determined level of service--rather than economic self-sufficiency of a facility--is the first objective of development and design, and to ensure that they have ample opportunity for full use of the transportation system.

b. Provide public transportation which will take people who are employed in the CBD and other major generators quickly and comfortably to and from their places of residence.

c. Design systems of transit routes which will attract the greatest number of passengers and also be practical from an operating point of view.

d. Transit systems should be given every competitive edge over the private automobile.

e. Sufficient service must be offered to make the transit system reasonably attractive and, at the same time, as economical as possible.

f. Mass transit systems should strangthen the role of the CBD as the financial, business, administrative, and government center within major "growth centers."

g. Develop a state policy and encourage state involvement in the provision of urban mass transit.

h. Work toward the support of public transportation facilities from user charges.

i. Consideration should be given to coordination between proposed bus systems and school bus systems.

1.2.2 TRANSPORTATION STANDARDS USED IN ESTIMATING NEEDS

Standards used in developing needs estimates in Montana were derived from two sources: 1) Proposed standards from individual transportation studies, transit studies, and community plans; 2) federal standards for individual facilities.

Standards used to develop mass transit needs estimates within "urbanized" and "small urban areas" were developed as part of individual mass transit studies conducted within each area. Standards for parking were extracted from local transportation and CBD studies. Standards applied on a statewide basis for air

terminal facility needs are those federal guidelines contained in the 150 series of Federal Advisory Circulars relating to airports.

1.2.3 FORECASTING TECHNIQUES FOR TRAVEL AND FACILITY USAGE

As a step in the estimation of current and future needs, travel activity was assessed for mass transit and auto activity within the "urbanized areas" and for air traffic activity at all state air terminal facilities.

A. MANUAL C (FORM C-21)

Planning groups in the three Montana "urbanized areas" relied heavily on data contained in urban transportation studies for the completion of Form C-21 used to report existing and projected person trips both on the basis of travel mode; (i.e., auto, mass transit, taxi), and on the geographic basis; (i.e., total area trips, CBD trips). The basis for these determinations was extensive home interview surveys conducted as part of the transportation study process which forecast future trips by the application of the "Trip Generation" process using future land use, population, employment, residential density, and other variables to project future trips and travel patterns.

1990 projected populations for use in these urban transportation studies were somewhat higher than initial estimates made by the Department of Transportation, as listed in Appendix A of Manual B. It was decided, however, that trip tables from urban transportation studies would still be used, as it was felt that a slightly higher number of trips which would be generated would not significantly affect facility needs.

Trip tables in all three urbanized areas contained only vehicle trips. It was therefore necessary to use various "persons per vehicle" factors obtained from

classification ground counts and from Urban Transportation Study Home Interview Trip Summaries to expand vehicle trips to person trips. Current ratios of persons per auto were assumed in reporting 1990 person trips.

Total data for 1990 bus trips were not available through urban transportation studies, as a "Modal Split" was effectuated as part of these studies. Forecasters of mass transit person trips were made for 1990, however, as part of recent mass transit studies. These mass transit trip projections were made for peak and off-peak periods, and for CBD and total area.

B. MANUAL D (FORM D-2)

Future airport activity and capacity data requested on Page 2 of Form D-2 for Air Carrier Airports were based on projections from Survey and Analysis of Scheduled Air Transportation in Montana 1960-1980. Projections of air activity in this survey were made in five-year increments to 1980 and contained all necessary information on future passenger enplanements and aircraft operations. For the purpose of projecting 1985 data to 1990, graphs were prepared on current projected operations for each airport, and on a "straight line" basis, were extended to 1990. Adjustments were also made to many of these straight line projections in light of current knowledge of factors affecting future growth.

Current air carrier cargo data were also contained in the Montana State Air Survey. These data were forecast to 1975, 1980, and 1990 on the basis of factors developed in cooperation with local planning boards and airport managers relating to future industrial, commercial, and airport growth within an area, or through individual local airport studies where such studies were available.

Peak hour operations were, for the most part, determined as they related to total operations--as determined by the process described in Manual D, Appendix D, page 10.

Future capacity figures reported on Form D-2 were based on FAA VFR capacity guidelines as compared to currently planned development.

Existing capacities of airport access and parking were obtained from local airport managers and were expanded on the basis of future airport activity because it was felt that adequate parking and access will be supplied as demands increase. No exclusive bus or rail access routes are planned between now and 1990.

Estimates of airport activity for individual airports are contained in the Appendix on pages 83-100.

1-2.4 DESCRIPTION OF IMPROVEMENTS AND ALTERNATIVE PROJECTS

This chapter has been incorporated into SECTION 1-2, NEEDS ESTIMATES.

1-2.5 SOURCE MATERIALS

This section contains listings by transportation mode of source materials used in the preparation of needs estimates and capital improvement programs for Montana.

HIGHWAYS

Montana Highway Functional Classification and Needs Study 1970-1990, Montana State Highway Commission;

1968 National Highway Functional Classification Study;

1969 Montana Primary Highway Sufficiency, Montana Highway Commission, 1969;

1972 Estimate of the Cost of Completing the National System of Interstate and Defense Highways In Montana, Montana Highway Commission, 1971;

Your Montana Highway Dollars, Montana Highway Users Conference, 1971;

Billings Area Urban Transportation Plan, prepared for Montana Highway Commission, 1969;

Great Falls Transportation Plan, 1968 Update, prepared for Montana Highway Commission, 1969;

Great Falls Urban Transportation Plan, 1961, prepared for Montana Highway Commission, 1964.

Missoula Area Transportation Plan, 1968, prepared for Montana Highway Commission, 1969;

TOPICS Great Falls 1970-71, prepared for Montana Highway Commission, 1971;

Helena Traffic Circulation and Parking Study, Daily Engineering, 1968;

Billings, Montana, Central Area Study, Billings City-County Planning Board, 1970.

MASS TRANSIT

Transit Study for Billings, Montana, prepared for Billings-Yellowstone City-County Planning Board, 1969;

Feasibility of Transit Service in Great Falls, Montana, prepared for Great Falls City-County Planning Board, 1968;

Transit Study for Missoula, Montana, prepared for Missoula City-County Planning Board, 1969;

Demonstration Project for Helena, Montana, Clete Daily & Associates, 1971.

AIRPORTS

Interim State Airport Systems Plan, Montana Aeronautics Commission, 1969;

Planning the State Airport System, FAA/NASAO;

1968 National Airport Plan, Federal Aviation Administration, 1968;

Airport Capacity Criteria Used in Preparing the National Airport Plan, Federal Aviation Administration;

Airport Criteria Used in Long-Range Planning, Federal Aviation Administration.

In addition to the above publications, community Comprehensive Plans for cities and towns throughout Montana were used extensively in the determination of roadway, transit, parking, and airport needs.

1-3 CAPITAL IMPROVEMENT PROGRAMS

Based on Montana's transportations needs estimates, prepared as outlined in Chapter I-2, Capital Improvement Programs were prepared for two time-periods:

1974-1978, and 1979-1990, reflecting what transportation projects would be funded under three federal funding alternatives. These theoretical funding alternatives are as follows:

A. LOW FUNDING LEVEL: On this level, the State would receive--using present legislative constraints and matching levels--50 percent of currently authorized federal funds.

B. HIGH FUNDING LEVEL: In this alternative, the State would receive--using present matching levels--100 percent of funding levels authorized under existing legislation.

C. HIGH FUNDING LEVEL (CONSTRAINTS REMOVED): Funding would be at the same level as the second alternative, except that the matching ratio for all programs is 2/3 Federal-1/3 State, or local and legislative constraints have been removed to permit:

Transfer of funds between programs;

Fund capital costs of projects currently not desirable under any program.

1-3.1 AREAL DISTRIBUTION OF FEDERAL FUNDS AND PROJECTION OF STATE FUNDS

In order to prepare capital improvement programs under these funding alternatives, it was necessary to first establish project priorities and, secondly, to estimate federal, state, and local funds available for each program.

Upon determination of available funds, it was necessary to distribute or allocate these funds on a state level among the various transportation modes--to the three urbanized areas; the small urban area aggregate; and to the rest of the state aggregate.

The following sections will describe the basis on which funds were allocated for each mode, along with a discussion of revenue sources for each transportation

type:

HIGHWAYS

Federal funds for highways were distributed to the rural, urbanized, and urban areas primarily on the basis of needs shown by the 1990 Functional Classification Study. The Study indicated that approximately 83 percent of the needs were located in rural areas; seven percent in the three urbanized areas of Billings, Great Falls and Missoula; and 10 percent in our 15 small urban areas. Funds were further allocated to each urbanized area on the basis of population and to the classified systems within the rural, urban, and urbanized areas on the basis of needs, as shown in the following tabulation on page 46.

Montana Highway Commission records indicate that approximately seven percent of all state highway construction was located in urban areas during the past three fiscal years. The allocation of 17 percent of total available funds for highways to urban areas, therefore, represents a substantial increase in funding during the period 1974-1990.

Projected federal funds allocated to Montana under Alternate I, Low Level, amounts to about $37,381,000 per year for all systems during the period of 1974-1978. This amount compares to $93,017,000 allocated for Fiscal Year 1971 and $63,673,000 in 1972.

Past records indicate that fuel and gross vehicle weight taxes accruing to the State Highway Commission have been increasing at the rate of about five percent per year. This rate has been used in projecting future highway revenue for the period 1974-1978 and 1979-1990, as shown in the following tabulation.

PRELIMINARY ALLOCATION OF FEDERAL FUNDS

MANUAL B--NATIONAL HIGHWAY FUNCTIONAL CLASSIFICATION AND NEEDS STUDY

CLASSIFIED SYSTEM	TOTAL MILES	NEEDS ESTIMATE: DEFICIENT MILES	NEEDS ESTIMATE: ESTIMATED COST TO IMPROVE $(000)	NEEDS ESTIMATE: PERCENT OF EST. COST	ALLOCATION OF FEDERAL FUNDS: ALTERNATIVE I: FA SYSTEM 1974-1978 $(000)	ALLOCATION OF FEDERAL FUNDS: ALTERNATIVE I: BLOCK GRANT 1979-1990 $(000)	ALLOCATION OF FEDERAL FUNDS: ALTERNATIVE II: FA SYSTEM 1974-1978 $(000)	ALLOCATION OF FEDERAL FUNDS: ALTERNATIVE II: BLOCK GRANT 1979-1990 $(000)
RURAL								
Interstate	1,136	558	** 30,383	2.1	110,211	* 51,706	221,187	** 4,665
Other Principal Art.	1,991	1,907	420,174	29.1	17,937	168,423	35,876	372,394
Minor Arterials	3,742	3,119	394,398	27.4	16,893	159,066	33,786	351,706
Major Collectors	5,249	4,639	351,103	24.3	27,322	140,352	54,642	310,329
SUBTOTAL	12,118	10,223	1,196,058	82.9	172,363	519,547	345,491	1,039,094
URBANIZED AREAS--BILLINGS, GREAT FALLS, MISSOULA								
Interstate	27	15	** 746	0.1	* 471	** 530	471	** 530
Other Principal Art.	99	93	38,520	2.7	2,610	15,301	5,219	32,589
Minor Arterials	139	135	62,687	4.2	4,082	24,129	8,164	51,390
Collectors	139	139	47,056	3.3	937	19,421	1,952	41,363
SUBTOTAL	404	382	149,009	10.3	8,100	59,381	15,806	125,872
OTHER URBAN AREAS								
Interstate	25	13	** 709	0.1	* 294	** 503	294	** 503
Other Principal Art.	105	98	38,559	2.7	2,465	18,310	4,928	33,978
Minor Arterials	109	97	31,148	2.1	2,016	14,191	4,033	26,333
Collectors	137	137	27,888	1.9	530	13,275	984	24,634
SUBTOTAL	376	345	98,304	6.8	5,305	46,279	10,239	85,448
TOTAL URBAN	780	727	247,313	17.1	13,405	105,660	26,045	211,320
TOTAL RURAL	12,118	10,223	1,196,058	82.9	172,363	519,547	345,491	1,039,094
GRAND TOTAL	12,898	10,950	1,443,371	100.0	185,768	625,207	371,536	1,250,414

* 1972 Interstate Estimate
** Functional Classification & Needs Study Resurfacing Only

PRELIMINARY ALLOCATION OF FEDERAL FUNDS TO URBANIZED AREAS

MANUAL B--NATIONAL HIGHWAY FUNCTIONAL CLASSIFICATION AND NEEDS STUDY

	TOTAL MILES	DEFICIENT MILES	ESTIMATED COST TO IMPROVE $(000)	PERCENT OF URBANIZED POPULATION	PERCENT OF TOTAL STATE NEEDS	ALTERNATIVE I FA SYSTEM 1974-1978 $(000)	ALTERNATIVE I BLOCK GRANT 1979-1990 $(000)	ALTERNATIVE II FA SYSTEM 1974-1978 $(000)	ALTERNATIVE II BLOCK GRANT 1979-1990 $(000)
URBANIZED AREAS--BILLINGS, GREAT FALLS, MISSOULA									
BILLINGS									
Interstate	13	13	666		0.04	* 273	** 473	* 273	** 473
Other Principal Art.	48	47	18,327		1.27	1,238	7,185	2,476	15,304
Minor Arterials	53	51	18,841		1.31	1,238	7,185	2,476	15,304
Collector Streets	64	64	19,976		1.38	347	7,405	722	15,769
SUBTOTAL	178	175	$57,810	37.0	4.00	$3,096	$22,248	$5,947	$46,850
GREAT FALLS									
Interstate	6	2	80		0.01	* 107	** 57	* 107	** 57
Other Principal Art.	31	29	12,518		0.87	892	5,932	1,783	12,634
Minor Arterials	42	41	21,262		1.47	1,518	10,169	3,035	21,659
Collector Streets	33	33	10,714		0.74	336	5,085	703	10,830
SUBTOTAL	112	105	$44,574	36.0	3.09	$2,853	$21,243	$5,628	$45,180
MISSOULA									
Interstate	8	-	-		-	* 91	-	* 91	-
Other Principal Art.	20	17	7,677		0.53	452	2,543	903	5,415
Minor Arterials	44	43	22,583		1.57	1,354	7,627	2,710	16,244
Collector Streets	42	42	16,365		1.13	254	5,720	527	12,183
SUBTOTAL	114	102	$46,625	27.0	3.23	$2,151	$15,890	$4,231	$33,842
TOTAL URBANIZED AREAS	404	382	$149,009	100.0	10.32	$8,100	$59,381	$15,806	$125,872

* 1972 Interstate Estimate

** Functional Classification and Needs Study

FINAL ALLOCATION OF FEDERAL FUNDS

MANUAL B--NATIONAL HIGHWAY FUNCTIONAL CLASSIFICATION & NEEDS STUDY

(THOUSANDS OF DOLLARS)

CLASSIFIED SYSTEM	ALTERNATIVE I FA SYSTEM 1974-1978	ALTERNATIVE I BLOCK GRANT 1979-1990	ALTERNATIVE II FA SYSTEM 1974-1978	ALTERNATIVE II BLOCK GRANT 1979-1990	ALTERNATIVE III BLOCK GRANT 1974-1978	ALTERNATIVE III BLOCK GRANT 1979-1990
REST OF STATE AGGREGATE--RURAL						
Interstate	110,211	51,706	170,438	4,665	132,979	4,665
Other Principal Arterials	17,937	168,423	35,876	248,791	61,695	236,235
Minor Arterials	16,893	159,066	33,786	233,419	57,440	222,097
Major Collectors	27,322	140,352	54,642	187,088	93,607	168,238
Minor Collectors				365,131		409,741
Local Roads & Streets						
SUBTOTAL	172,363	519,547	294,742	1,039,094	345,721	1,040,976
URBANIZED AREAS--BILLINGS, GREAT FALLS, MISSOULA						
Interstate	471	530	471	530	368	530
Other Principal Arterials	2,582	15,660	5,162	20,339	5,162	20,130
Minor Arterials	4,110	24,981	8,221	36,619	8,221	36,286
Collectors	937	18,210	1,952	31,536	1,952	31,457
Local Streets				36,848	6,615	53,430
SUBTOTAL	8,100	59,381	15,806	125,872	22,318	141,833
SMALL URBAN AREAS						
Interstate	294	503	294	503	229	503
Other Principal Arterials	2,465	18,310	4,928	22,454	4,928	22,254
Minor Arterials	2,016	14,191	4,033	17,205	4,033	17,042
Collectors	530	13,275	984	18,785	984	18,745
Local Streets				26,501	4,263	37,685
SUBTOTAL	5,305	46,279	10,239	85,448	14,437	96,229
TOTAL RURAL	172,363	519,547	294,742	1,039,094	345,721	1,040,976
TOTAL URBAN	13,405	105,660	26,045	211,320	36,755	238,062
GRAND TOTAL	185,768	625,207	320,787	1,250,414	382,476	1,279,038

FINAL ALLOCATION OF FEDERAL FUNDS

MANUAL B--NATIONAL HIGHWAY FUNCTIONAL CLASSIFICATION AND NEEDS STUDY

CLASSIFIED SYSTEM	ALTERNATIVE I FA SYSTEM 1974-1978	ALTERNATIVE I BLOCK GRANT 1979-1990	ALTERNATIVE II FA SYSTEM 1974-1978	ALTERNATIVE II BLOCK GRANT 1979-1990	ALTERNATIVE III BLOCK GRANT 1974-1978	ALTERNATIVE III BLOCK GRANT 1979-1990
URBANIZED AREAS						
BILLINGS						
Interstate	273	473	273	473	213	473
Principal Arterials	1,238	7,185	2,476	10,637	2,476	10,536
Minor Arterials	1,238	7,185	2,476	11,001	2,476	10,901
Collectors	347	7,405	722	13,490	722	13,461
Local Streets				11,249	3,398	16,527
TOTAL	3,096	22,248	5,947	46,850	9,285	51,898
GREAT FALLS						
Interstate	107	57	107	57	84	57
Principal Arterials	892	5,932	1,783	6,325	1,783	6,253
Minor Arterials	1,518	10,169	3,035	12,184	3,035	12,061
Collectors	336	5,085	703	6,932	703	6,904
Local Streets				19,682	1,729	27,028
TOTAL	2,853	21,243	5,628	45,180	7,334	52,303
MISSOULA						
Interstate	91		91		71	
Principal Arterials	452	2,543	903	3,377	903	3,341
Minor Arterials	1,354	7,627	2,710	13,434	2,710	13,324
Collectors	254	5,720	527	11,114	527	11,092
Local Streets				5,917	1,488	9,875
TOTAL	2,151	15,890	4,231	33,842	5,699	37,632
	8,100	59,381	15,806	125,872	22,318	141,833

Fiscal Year	Motor Fuel Tax	GVW Tax	Other Revenue	Total Revenue
		(Thousands of Dollars)		
1970	$ 25,536	$ 6,885	$ 2,137	$ 34,558
1971	27,986	7,169	2,137	37,292
1974-78	179,015	45,852	10,685	235,552
1979-90	658,133	168,577	25,644	852,354

Maintenance and administrative costs are estimated at approximately 48 percent of total revenue, and are assumed to be funded entirely with state funds. After these charges have been deducted, it is estimated the following amounts will be available for matching federal aid for highways at the state level:

Fiscal Year	Total Income for Highways	(Thousands of Dollars) Maintenance & Administrative	Net Available for Matching
1974-78	$ 235,552	$ 113,065	$ 122,487
1979-90	852,354	409,130	443,224
Total:	$1,087,906	$ 522,195	$ 565,711
Average per year:	$ 63,995	$ 30,717	$ 33,278

Present statutes specify that $3,000,000 per year of the state's fuel tax be appropriated to all incorporated cities and counties by a fixed formula. A projection of this allocation by rural, urban, and urbanized areas, is shown in the following tabulation:

Fiscal Year	Area	(Thousands of Dollars) Amount per Year	Total
1974-78	Rural	$ 1,804	$ 9,020
	Urbanized (3)	595	2,975
	Urban (15)	601	3,005
Grand Total----------		$ 3,000	$15,000
1979-1990	Rural	$ 1,804	$21,648
	Urbanized (3)	595	7,140
	Urban (15)	601	7,212
Grand Total----------		$ 3,000	$36,000

1-3.2 INTERSTATE SYSTEM

Due to the lack of federal funding, Montana will not be able to complete the Interstate System by 1978 under Alternate I. It is estimated that 130 miles of 4-lane and 93 miles of add 2-lane can be constructed under the available funds. There will then be 145 miles of add 2-lane and 438 miles of resurfacing that cannot be constructed under Alternate I during the period 1974-1978.

All needs on the Interstate System, including 438 miles of resurfacing, can be financed under Alternative II during fiscal years 1974-1978, at a total estimated cost of $187,294,000. Under this Alternative, there will be a surplus of $50,749,000 in federal funds allocated to the Interstate System during the five-year period.

A. PRIMARY SYSTEM

Projects included for funding under Alternates I and II were selected on a priority basis as indicated by the latest sufficiency rating of the Primary System. The Functional Classification and Needs Study indicated that there were about 5,000 miles of deficient roadway on the other principal and minor arterial systems, which approximate the existing Primary System. Of this amount, Montana will only be able to improve 290 miles under Alternate I funding and 581 miles under Alternative II. Backlog needs alone on the Other Principal and Minor Arterial Systems amount to 3,189 miles, at a total cost of approximately $542,000,000.

B. SECONDARY SYSTEM

Both major and minor collectors are included in the Present Federal Aid Secondary System. Due to restrictions on funding under both Alternatives I and II, construction will be limited to projects located on more important

routes on the major collector system during the period 1974-1978. High priority projects in the backlog of needs were selected on consultation with our district engineers and local authorities. It is estimated that 488 miles of major collectors can be improved under Alternative I and 976 miles under Alternative II during the period 1974-1978. This compares with an existing backlog of 2,180 miles, estimated to cost $233,341,000 on the major collector system.

C. URBANIZED AREAS

Each of the three urbanized areas in Montana had comprehensive transportation plans either completed or updated during the past five years. These plans developed priorities for required improvements and estimated costs.

Meetings were held with officials of the urbanized areas during the course of this study to determine if the priorities developed in the urban transportation studies were still valid. With very few exceptions, the priorities developed in the transportation studies were reaffirmed.

Federal funds allocated under Alternatives I and II will allow construction of about seven and 14 percent, respectively, of the total needs in the urbanized areas during the period 1974-1978.

In two of our urbanized areas, replacement and widening of three structures crossing major streams, were listed as the highest priority. These structures cannot be funder under Alternative I. Reconstruction of existing streets--which carries a lower priority--was substituted for the structures.

D. SMALL URBAN AREAS

Construction priorities for the 15 small urban areas were obtained primarily from comprehensive plans developed by consultants for the cities under Housing and Urban Development grants, and from recommendations of our district and

division engineers.

The backlog needs indicated by the Functional Classification and Needs Study amount to $48,128,000. Funds will be available to finance approximately 14 and 28 percent of the indicated backlog under Alternatives I and II.

1-3.3 ALLOCATION OF FEDERAL AND STATE FUNDS UNDER ALTERNATIVES II AND III

The allocation of federal funds to highways was made at the same level for Alternatives II and III, with the exception that surplus federal funds allocated for mass transit were allocated to urbanized and small urban areas specifically for the improvement of the local street systems. These federal funds amounted to $9,195,000 in the period of 1974-1978, and $24,337,000 from 1979-1990.

A portion of funds allocated for airport construction were also reallocated to rural minor collectors and local streets in the respective urban and urbanized areas. These federal funds amounted to $1,515,000 in the urbanized areas, and $230, 000 in the rural state aggregate during the 1974-1978 period. During 1978-1990, surplus airport funds amounted to $2,343,000 in the urbanized areas, $63,000 in urban areas, and $1,882,000 in the rural aggregate.

These allocations were made under the assumption that matching funds would be provided by the local jurisdictions rather than by the State.

A. ALTERNATE III - REST OF STATE AGGREGATE

Under this Alternative, all of the State's needs on the classified systems, down through major collectors, may be completely financed during the period 1974-1990. In addition, approximately 91 percent of the indicated needs on the minor collector system can be satisfied during the same period. It is estimated that local jurisdictions should be able to fund the remaining nine

percent of indicated needs on the minor collector system during the 17-year period of 1974-1990.

B. ALTERNATE III - URBANIZED AREAS

All needs on the classified systems can be financed under Alternate III, in addition to the construction and reconstruction of approximately 320 miles of local streets during the period 1974-1990. It is assumed that the three local jurisdictions will provide matching funds of about $24,525,000 for local streets during the 17-year period.

C. ALTERNATE III- SMALL URBAN AREAS

The funding level of Alternative III will finance all needs indicated on the classified systems in small urban areas, as well as the improvement of about 266 miles of local streets during the period 1974-1990. Local jurisdictions will be required to supply about $17,133,000 in matching funds for local streets during the 17-year period.

D. RESPONSIBILITY FOR MATCHING FUNDS

During the period of 1974-1990, it is assumed the state and local jurisdictions will be responsible for providing the following matching funds for federal aid:

(See Chart, page 51)

ALTERNATIVE III -- TOTAL HIGHWAY PROGRAM 1974-1990

(THOUSANDS OF DOLLARS)

	Federal	State	Local	Total
Rural Areas	$1,386,697	$566,397		$1,953,094
Small Urban	110,666	28,068	$17,133	155,867
Billings	61,183	16,852	8,138	86,173
Great Falls	59,637	12,612	11,746	83,995
Missoula	43,331	13,057	4,641	61,029
TOTAL:	$1,661,514	$636,986	$41,658	$2,340,158
Average per year:	97,736	37,470	2,450	137,656

Projected state income available for matching federal aid for highways will apparently be about $3 million per year less than the $37,470,000 per year required to match projected federal aid under Alternative III. If this level of federal funding is approved by Congress, however, Montana will certainly request legislative action to provide the additional matching funds.

1-3.4 ASSUMPTIONS RELATING TO PERIOD PRIOR TO 1974

It has been assumed that the State will be able to obligate all federal funds allocated for highways during the period January 1, 1970 to June 30, 1973. This will require the discontinuance of the past practive of withholding allocated federal funds for highways from obligation by the Federal Highway Administration.

If this practice is discontinued and the backlog of allocated federal funds becomes available for obligation, Montana could finance the following highway

program during the fiscal years of 1972 and 1973.

	State and Federal Funds (Thousands of Dollars)
Interstate System	$112,000
Primary System	41,517
Secondary system	22,588
TOTAL:	$176,105

Specific projects let to contract from January 1, 1970, to June 30, 1971, or to be funded during fiscal years 1972-1973 were taken directly from the lettings or the five-year program. Estimated costs were reduced 14 percent, as indicated by the cost index, in order to be comparable with the 1969 base year. Costs of these proposed improvements, as well as the mileage involved, are subtracted by classified system from the needs indicated as of January 1, 1970.

1-3.1 MANUAL C - URBAN PUBLIC TRANSPORTATION

Federal aid target funds for mass transit in Montana, which are to be matched on a 1/3 - 2/3 basis by local, state or other non-federal funds, appear to be more than adequate to meet mass transit needs in Billings, Great Falls, Missoula, and communities of over 20,000 in the "urban area aggregate." As stated in Chapter 1-2, communities under 20,000 do not show mass transit needs. These target funds for Montana for urban public transit are as follows:

	Total for Each Fiscal Year 1974-1978
Yearly Low Funding Level	$ 968,000
Five Year Total	4,840,000
Yearly High Funding Level	1,936,000
Five Year Total	9,680,000

Total Funding - 1979-1990

Low Funding Level	$12,475,000
High Funding Level	24,951,000

Since Alternative I relates to low level of funding, and Alternative II relates to a high level of funding, this would be stated:

Alternative I (Mass Transit)

1974-1978	$4,840,000
1979-1990	12,475,000

Alternative II (Mass Transit)

1974-1978	$9,680,000
1979-1990	24,951,000

Under this assumption, adequate federal funds are available to meet mass transit needs, even under the low funding level. The basic problem in allocating funds was to determine if the three "urbanized areas" and the four communities over 20,000 population in the urban area aggregate would be able to raise local 1/3 matching moneys necessary for capital expenditures to take care of their stated transit needs.

Mass transit feasibility studies which have been completed for the three urbanized areas indicate that over and above matching moneys which must be expended on capital items, operational costs would also have to be publicly subsidized, which would place additional burdens on these communities. Under Alternatives I and II, as stated in Manual C, Urban Public Transportation, "Cities must provide at least 33 1/3% of the net project cost." Net project cost is defined as "that portion of the capital cost that cannot be covered by 'farebox revenues'."

1-3.2 PROJECT PRIORITIES UNDER ALTERNATIVES I AND II

It appears that adequate federal funds will be available to meet all mass transit needs under a low level of funding. Only one allocation will be necessary to cover funding Alternates I and II for urban public transportation. The reason for this is that both Alternate I and Alternate II programs would be identical in this situation.

It was learned that the amount of federal funds available for mass transit were greater than funds necessary to meet capital needs; a basis other than need, therefore, was used to allocate federal funds. In this event, 1990 population was used as the determinant. Projected populations for the urbanized areas of over 50,000 persons in 1990 are as follows:

Billings	107,000
Great Falls	102,000
Missoula	77,000

Projected populations for those other communities over 20,000 persons in 1990 are as follows:

Butte	41,500
Helena	35,000
Bozeman	32,000
Kalispell	25,000

Apportionment of all federal aid target funds on the basis of population to those communities with a 1990 population greater than 20,000 persons resulted in the following initial allocations:

Community	Population	% of Total Pop.	FEDERAL TARGET FUNDS ALTERNATIVE I 1974-1978	ALTERNATIVE I 1979-1990	ALTERNATIVE II 1974-1978	ALTERNATIVE II 1979-1990
Billings	107,000	25%	$1,210,000	$3,118,750	$2,420,000	$6,237,750
Great Falls	102,000	25%	1,210,000	3,118,000	2,420,000	6,347,750
Missoula	77,000	18%	871,200	2,243,500	1,742,400	4,491,400
Butte *	41,000	10%	484,000	1,247,500	968,000	2,495,100
Helena	35,000	8%	387,200	996,000	774,000	1,996,080
Bozeman	32,000	8%	387,200	996,000	774,000	1,996,080
Kalispell	25,000	6%	290,400	748,500	580,000	1,497,060
TOTALS:	419,000	100%				

The population total of those Montana communities over 20,000 persons in 1990 (419,000) is 82% of total population of communities over 5,000. Total population of communities over 5,000 is 508,100 persons; therefore, even though the total federal funds were allocated to only the seven largest communities, a large percentage of people would benefit from these funds.

1-3.3 ALTERNATIVE III

It seemed that it would be desirable under funding Alternative III to allow for a more equitable distribution of federal mass transit funds, so that all communities with populations of over 5,000 might benefit, regardless of whether or not they develop a system of mass transit. Communities without systems of mass transit could, in this regard, expend their portion of these funds on capital projects related to other transportation modes by matching these federal funds on a 1/3 - 2/3 basis. Since communities of over 20,000 persons can most generally justify some level of public transit through decrease in traffic

*To be reported as one block representing "small urban area aggregate."

congestion, decrease in parking demand, service to citizens with a direct dependence on public transportation, reinforcement of central business districts, high density residential areas, and other uses of land, mass transit funds should be used exclusively for mass transit in communities of over 20,000 persons. The potential loss of these funds would serve as an incentive to the development of mass transit systems in communities of over 20,000 persons.

In Alternative III, it was assumed that communities with populations under 20,000 would share in urban mass transit funds in the manner outlined above; the allocation of these funds under Alternative III was as follows:

Community	Population	% of Total Pop.	Alternative III Federal Funds 1974-1978	Alternative III Federal Funds 1979-1990
Billings	107,000	21.1%	2,042,000	5,265,000
Great Falls	102,000	20.1%	1,946,000	5,015,000
Missoula	77,000	15.1%	1,462,000	3,767,000
Butte	41,000	8.2%	794,000	2,046,000
Helena	35,000	7.0%	678,000	1,747,000
Bozeman	32,000	6.3%	610,000	1,572,000
Kalispell	25,000	4.9%	474,000	1,223,000
Remainder of Aggregate	89,100	17.3%	1,674,000	4,316,000
Total Agg.	222,100	43.7%	4,230,000	10,904,000
TOTALS:	508,100	100.0%	9,680,000	24,951,000

Excess funds were reallocated to highways in the "small urban area aggregate" as capital costs of needs for mass transit in the "urbanized areas" and "small urban aggregate" amounted to only 3.3 percent of total funds allocated for

mass transit.

MASS TRANSIT ALTERNATIVE III

		Allocated	Used	Supplementary Funds Re-allocated to Highways
Billings	1974-78	$2,042,000	$179,000	$1,863,000
	1979-90	5,265,000	217,000	5,048,000
Great Falls	1974-78	1,946,000	240,000	1,706,000
	1979-90	5,015,000	163,000	4,852,000
Missoula	1974-78	1,462,000	34,000	1,428,000
	1979-90	3,767,000	49,000	3,718,000
Small Urban Aggregate	1974-78	4,230,000	32,000	4,198,000
	1979-90	10,9401000	222,000	10,718,000

1-3.4 ASSUMPTIONS RELATING TO PERIOD PRIOR TO 1974

Based on statements by officials in urbanized areas, and on the time requested to implement mass transit programs, it was assumed that no mass transit needs would be met until about 1974; therefore, no mass transit capital improvements would be funded prior to 1974.

1-3.5 TRANSFERS OF OWNERSHIP

It has been assumed that the systems of mass transit proposed be publicly sponsored except in the urbanized area of Billings which is now operating a private system. In Billings, it is proposed that a transfer to public operation and sponsorship be effectuated around 1974. It is proposed, however, that new equipment be acquired at this future date.

1-3.1 TOPICS* ALLOCATION

TOPICS funds have been allocated to all communities over 5,000 population by 1990--individually to each of the three urbanized areas, and as a block to the small urban area aggregate. An average cost of each improvement type was calculated, based upon existing TOPICS studies in Montana communities. The number of improvements which could be implemented in each community was then determined based on average improvement cost and on available funds.

Federal funds have been apportioned to communities, as shown on page 59.

Since TOPICS funds have not been broken out of highway federal target funds for the period 1979-1990, it has been decided to use the same federal yearly targets as were used in the period 1974-1978. The formula produced the following allocation of federal funds to TOPICS programs for the second funding period:

Alternative I 1979-1990 (low level)

$228,000 per year for 12 years
$2,736,000 Total Federal Allocation

Alternative II 1979-90 (high level)

$456,000 per year for 12 years
$5,472,000 Total Federal Allocation

*Traffic Operation Plan to Increase Capacity and Safety

T O P I C S

FEDERAL FUNDS APPORTIONED TO COMMUNITIES

Community	1990 Population	% of Total Population	TOPICS Federal Target Funds			
			Alternative I		Alternative II	
			1974 - 1978	1979 - 1990	1974 - 1978	1979 - 1990
Billings	107,000	21.1%	240,000	578,000	480,000	1,154,000
Great Falls	102,000	20.1%	229,000	550,000	458,000	1,100,000
Missoula	77,000	15.1%	172,000	413,000	344,000	826,000
Butte	41,000	8.2%	93,000	224,000	187,000	449,000
Helena	35,000	7.0%	80,000	192,000	159,000	383,000
Bozeman	32,000	6.3%	72,000	172,000	144,000	345,000
Kalispell	25,000	4.9%	56,000	134,000	112,000	268,000
Remainder of Aggregate	89,100	17.3%	197,000	473,000	394,000	947,000
Total Aggregate	222,100	43.7%	498,000	1,195,000	996,000	2,392,000
Totals	508,100	100.0%	1,139,000	2,736,000	2,278,000	5,472,000
			Rate per year $228,000		Rate per year $456,000	

1-3.1

TO

1-3.3 AIRPORTS

The decision was made to use 1980 traffic predictions to make a tentative monetary split to the air carrier airports. The needs for each would be met according to the percentage split of each airport. The unused money was reallocated based on needs of the smaller airports.

Aid to air carrier airports and sponsors air carrier airports was combined and apportioned to air carrier airports. The rationale for this was that all the air carrier airports in the State are carrier airports and sponsors air carrier, as the two categories are defined in Manual D. The airports aggregated I-V were included solely in the General Aviation Category.

Alternatives I and II were generally involved with runway and runway area improvements only, due to legislative constraints.

In general, Alternative I was not sufficient to cover the needs for runways and runway areas.

Alternative III is much different from the first two Alternatives, mainly because of the fact that the airport boards of most of the communities felt that a higher priority should be placed on terminal improvements. In the past, money was available for runways on a matching basis. Due to this fact, many--if not most of the airports--have runways capable of handling traffic for the next ten-year period. The money available would be better utilized if it could be used in areas other than runway related facilities.

Under Alternative III, that money which the urban area airports did not show a need for, was reallocated to other needs within that urban area. For the rest

of the air carrier airports, the money not used by the airport to which it was allocated, was then reallocated to the other airports which could show a need for it.

It should be noted there that while this money was originally allocated on a projected passenger use basis, the actual allocation into the funding levels was based also upon need and determination of how much matching money could be made available by each of the communities involved.

Target funds, based on the annual authorization level prescribed by the Airport and Airway Development Act of 1970, and as outlined in Appendix D of Manual A for Montana, were allocated to the Montana Aeronautics Commission on the following basis for use in the preparation of capital improvements programs for the airports portion of the National Transportation Study:

For the funding period 1974-1978--under both high and low funding levels--federal target funds were allocated directly for each of the three categories outlined in Appendix D. This allocation was as follows:

Low Funding Level 1974-1978	(000)	% of Total
Aid to carrier airports	$6,592	73%
Aid to sponsors air carrier	824	9
Aid to general aviation airports	1,598	18
	$9,014	100%

High Funding Level 1974-1978		
Aid to Air Carrier Airports	13,185	73%
Aid to Sponsors Air Carrier	1,647	9
Aid to General Aviation Airports	3,197	18
	$18,029	100%

The same ratio was assumed to apportion funds between the various categories in the second funding period as was used in the period from 1974-1978.

Low Funding Level 1979-1990	(000)	% of Total
Aid to air carrier	$15,790	73%
Aid to sponsors air carrier	1,947	9
Aid to general aviation airports	3,893	18
	$21,630	100%

High Funding Level 1979-1990		
Aid to Air carrier	$31,580	73%
Aid to sponsors air carrier	3,893	9
Aid to general aviation airports	7,787	18
	$43,260	100%

For the purposes of preparing capital improvements programs under Alternative I (low funding level) and Alternative II (hihg funding level), this breakdown has been re-stated as follows:

Major Program 1974-1978	Alternative I	Alternative II
Aid to air carrier	$6,592	$13,185
Aid to sponsors air carrier	824	1,647
Aid to general aviation airports	1,598	3,197
	$9,014	$18,029

Major Program 1979-1990		
Aid to air carrier	$15,790	$31,580
Aid to sponsors air carrier	1,947	3,893
Aid to general aviation	3,893	7,787
	$21,630	$43,260

In order to prepare capital improvements programs, state and/or local funds must be shown to supplement this allocation at a ratio of 50% Federal-50% State, or local for the funding period 1974-78, and at a ratio of 66 2/3 Federal-33 1/3 State or local.

PER % YEAR PERIOD
1974-1978

ALLOCATED ON BASIS OF 1980 PROJECTED PASSENGER BOARDINGS

CITY	%	Low	High
Billings	25.263	$1,873,504	$3,747,008
Bozeman	18.322	1,358,760	2,717,519
Browning			
Butte	6.869	508,738	1,017,475
Glasgow	.611	43,311	90,624
Glasgow AVCO			
Glendive	.238	17,650	35.300
Great Falls	24.016	1,781,026	3,562,053
Havre	.196	14,535	29,070
Helena	5.497	407,657	815,315
Kalispell	1.943	144,093	288,186
Lewistown	.377	27,958	55,917
Miles City	.366	27,143	54,285
Missoula	12.236	907,422	1,814,844
Sidney	.343	25,437	50,874
West Yellowstone	3.516	260,747	521,493
Wol Point	.216	16,019	32,037
	100.0%	$7,416,000	$14,832,000

ALLOCATED ON BASIS OF NEED

	Gen.Av.	Low	High
Aggregate I	30%	$ 479,400	$ 959,100
Aggregate II	30%	479,400	959,100
Aggregate III	30%	479,400	959,100
Aggregate IV	10%	159,800	319,700
	100%	$1,598,000	$3,197,000

1979-1990

ALLOCATION TO AIR CARRIER AIRPORTS ON BASIS OF PASSENGER BOARDINGS

City	%	I	II
Billings	25.263	$4,481,000	$8,962,000
Bozeman	18.322	3,250,000	6,499,000
Browning			
Butte	6.860	1,217,000	2,433,000
Glasgow	.611	108,000	217,000
Glasgow AVCO			
Glendive	.238	42,000	84,000
Great Falls	24.016	4,260,000	8,519,000
Havre	.196	35,000	70,000
Helena	5.497	975,000	1,950,000
Kalispell	1.943	345,000	689,000
Lewistown	.377	67,000	134,000
Miles City	.366	65,000	130,000
Missoula	12.236	2,170,000	4,340,000
Sidney	.343	61,000	122,000
West Yellowstone	3.516	624,000	1,247,000
Wolf Point	.216	37,000	77,000
	100.0%	$17,737,000	$35,473,000

ALLOCATED ON BASIS OF NEED

	%	I	II
Aggregate I	30%	$1,167,900	$2,336,100
Aggregate II	30%	1,167,900	2,336,100
Aggregate III	30%	1,167,900	2,336,100
Aggregate IV	10%	3,893,300	7,787,000

The Montana Aeronautics Commission has no direct grant programs involving state funds but rather has a loan program. This program involves a revolving fund $200,000 out of which is available on an annual basis for airport improvement. This money can be paid back over a period of time at a low interest rate.

Current state legislation allows both cities and counties the ability to levy up to two mills for runway, parking and other improvements. This revenue can be accrued and used for capital construction, etc., or it can be used to repay state loans, as described before.

Another potential source of revenue for capital projects is the Navigational Aid Program which is a purely discretionary federal program granting funds for the development of navigational radios, etc.. Past trends show about $10,000 per year alloted to Montana. This amount of money would supply about three airports with weather radio stations each year.

Another program of the Montana Aeronautics Commission is the General Aviation Utility program under which the Commission constructs or reconstructs one airport every two years with state funds. This program is funded at $50,000 per year, or $100,000 biennial.

Funds allocations under Alternatives I and II were based on the above programs along with federal participation as outlined.

Supplementary airport funds were re-allocated to highways under Alternative III on the following basis:

AIRPORTS - FUNDING LEVEL III (In thousands of dollars)

		Allocated:	Used:	*Transferred:
Billings:	1974-78	$3,474	$2,227	$1,475
	1979-90	8,962	8,962	-0-
Missoula:	1974-78	1,815	1,775	40
	1979-90	4,340	4,258	72
Great Falls:	1974-78	3,562	3,562	-0-
	1979-90	8,519	6,248	2,271
Small Urban Aggregate:	1974-78	6,774	6,774	-0-
	1979-90	14,927	14,864	53
Rest of State Aggregate:	1974-78	2,611	2,381	230
	1979-90	6,512	4,630	1,882

1.4 IMPLEMENTATION OF THE STUDY

This study was conducted as a joint effort by the following agencies:

Montana Department of Planning and Economic Development;

Montana Highway Commission;

Montana Aeronautics Commission;

Billings City-County Planning Board;

Missoula City-County Planning Board.

The study effort was coordinated by the Montana Department of Planning and Economic Development, and was completed in a period of approximately six months.

It was originally intended that the completed forms, maps, and narrative report would be submitted by September 1, 1971. The narrative report was not completed by this date, however, and additional time was required to prepare the report as required according to the format established by the Department of Transportation.

The original work schedule and progress as of September 1, 1971, is shown on pages 67-69.

1-4.1 STUDY PROCEDURES

This Section contains a chronicle of the procedures and tasks undertaken to assemble needs data, prepare capital improvements programs, and formulate policy for transportation as Montana's input into the National Transportation Study.

Tasks as broken down into four categories corresponding to Manuals A, B, C, and D are the responsibility of the Montana Department of Planning and Economic Development, unless indicated.

A. MANUAL A

Meet with participating agencies and prepare program;

develop overall transportation goals and objectives;

research capital funding programs for all transportation modes;

allocate funds under Alternates I and II to Highway Department, communities, Aeronautics Commission, and rest of State;

assist agencies in development of individual programs under Alternatives I and III

code forms A-17 and A-20 under Alternatives I and II;

prepare overall multi-modal transportation plan, based on goals and objectives;

re-allocate funds to all groups under Alternative III based on transportation plan;

assist agencies in development of individual programs under Alternative III;

code forms A-17 and A-20 under Alternative III;

coordinate all individual narrative reports into final narrative form;

submit all forms, narrative, and maps to DOT.

B. MANUAL B

Meet and develop program;

establish transportation goals and objectives related to highways;

research funding policies;

present preliminary allocations under Alternatives I and II;

preparation of programs Alternatives I and II (Highway Department);

coding of related portions of Forms A017--Alternatives I and II;

prepare plan related to needs based on goals and objectives;

preparation of program under Alternative III (Highway Department);

re-allocate highway portion of funds under Alternative III;

coding of related portion of Form A-17 Alternative III;

prepare final narrative and maps.

C. MANUAL C

Develop goals, objectives and standards related to urban mass transit, TOPICS, and urban highway-related facilities;

meet with Highway Department to arrive at a method of determining urban highway related needs for completion of appropriate portions of C series forms;

meet with urban planning groups and establish participation of urban mass transit portions of C series forms;

complete forms C-22 on transit companies (urbanized areas);

distribute forms C-23 to transit companies (urbanized areas);

coding and return forms C-23 (transit companies);

complete person trip forms C-21 (urbanized areas);

research funding policies;

present preliminary allocations under Alternatives I and II to Highway Department, urbanized areas and S. urban aggregate;

travel to four largest communities in small urban area aggregate, summarize form C-17 for each;

contact remainder of communities and develop statement relating to mass transit;

preparation of program Alternatives I and II urban highway related Alternative I and II (Highway Department);

preparation of program (Alternatives I and II) urban mass transit (urbanized areas);

preparation of program (Alternatives I and II) small aggregate mass transit (State);

coding of non-capital Alternatives C-24 (urbanized areas);

coding of related portions of forms A-17 and A-20, Alterntives I and II;

prepare plan related to needs based on goals and objectives;

re-allocate mass transit, TOPICS, etc., funds under Alternative III to Highway Department, urbanized areas, and small urban area aggregates;

preparation of Alternative III program under mass transit (urbanized areas);

code forms C-17 and C-20 and submit to State (Highway Department);

preparation of Alternative III program small aggregate mass transit (state);

code forms C-17 and C-20 (State);

coding of related portions of Forms A-17 and A-20 Alternative III;

prepare final narrative.

D. MANUAL D

Develop goals and objectives and standards related to airports and other terminal facilities;

meet with Aeronautics Commission,determine method of completing forms;

meet with urbanized area planning groups, distribute forms, and outline responsibilities in completing "D" series forms;

research funding policies;

present preliminary allocations under Alternatives I and II to Aeronautics Commission, urbanized areas and small urban area aggregates;

identify airports within state airport system;

complete Form D-1 State Airport System definition (Aeronautics Commission);

determine aggregate categories to be used;

complete Forms D-2 Individual Airport Data Forms, based on above determination, Alternatives I and II portions (Aeronautics Commission);

summarize forms D-2 onto forms D-17 and D-20 (Alternatives I and II , submit to state;

coding of airports portion of forms A-17 and A-20, Alternatives I and II (state);

prepare plan related to airport needs based on stated goals and objectives;

re-allocate funds to airports under Alternative III;

complete Alternative III portion of forms D-2 (Aeronautics Commission);

summarize Alternative III portion of forms D-17 and D-20, Alternative III (Aeronautics Commission); submit to state;

code airport portion of forms A-17 and A-20, Alternative III (state).

1-4.2 URBANIZED AREAS

The original organization of the National Transportation Study in Montana called for planning groups within the urbanized areas to provide all needs and capital improvements data within their respective jurisdictional areas; however, because of limited time and funds available to prepare this information on the local level, involvement by the urbanized areas and other communities throughout the State was not as extensive as desirable. Assistance in completing the "17" and "20" series forms was provided to urban planning groups in these areas by the Montana Department of Planning and Economic Development, the Montana Highway Commission, and the Montana Aeronautics Commission. Policy decision-making and major review responsibility was retained by local officials. Mayors of cities, local traffic engineers, airport managers, transit and airport commissions, provided policy upon which urbanized area needs and capital improvement programs were based.

"Small Urban Area Aggregate" and "Rest of State Aggregate"

Development of capital improvement and needs data for urban areas with populations between 5,000 and 50,000 and for rural areas, were developed by state level modal agencies. Data was developed for small urban areas on a cooperative basis with select communities representing the total aggregate.

Representatives of the Montana Highway Commission and of the Montana Aeronautics Commission traveled to all 15 communities within this aggregate to meet with local officials in preparing needs estimates under Manuals B and D. Representatives of the Montana Department of Planning and Economic Development traveled to the larger communities within the aggregate in preparing data under Manual C.

Rural area needs were developed by individual state transportation agencies on a statewide basis. A few communities within this rural aggregate were also

contacted to assure that the needs developed were generally realistic.

State and metropolitan agencies that have been extensively involved in the transportation planning process in Montana in the past five years include the following:

Montana State Department of Planning and Economic Development:

This department was designated by the Governor to provide major guidance and to make policy decisions at the state level in the preparation of this study. Additional responsibilities included the coordination of efforts of all state modal agencies and urban planning groups and the provision of assistance to these agencies upon request.

Some specific tasks of this agency included the formation of goals and objectives, the preliminary allocation of state and federal moneys, the assurance of consistency in needs formulation, the collation of all data, and the preparation of summary data for submittal to DOT.

The department also effected the reallocation of funds on the state level and the shift of funds between programs under Alternative III.

Montana Highway Commission, Planning Survey Section (urban and rural highway planning):

Responsible for preparation of needs data under Manual B. The Montana Highway Commission obtained the services of a consultant to complete the 1990 National Highway Functional Classification and Needs Study. Capital improvements programs required under Section IX of Manual B were developed in-house by Planning Survey staff.

Montana Aeronautics Commission (Local and statewide airport planning):

This department was responsible for completing needs and capital improvements data under Manual D and assisted the Department of Planning and Economic Development in arriving at individual needs estimates for each air carrier airport, and for select airports within each aggregate.

Billings City-County Planning Board - Great Falls City-County Planning Board Missoula City-County Planning Board (Urban Comprehensive Planning, Urban Transportation Planning):

These agencies were responsible for providing all needs and capital improvements data within their respective urbanized area jurisdictions and for involving local officials in transportation policy decisions.

Consultants were not used for the preparation of data required under Manuals A, C, and D, and Section IX of Manual B. It was originally intended, however, that a consultant would be used extensively in needs estimations and in the preparation of capital improvements programs. Lack of funds, however, precluded the use of a consultant.

1-4.3 RECOMMENDATIONS REGARDING PROCEDURES AND ORGANIZATION FOR FUTURE NATIONAL TRANSPORTATION STUDIES

It is anticipated that the organizational structure of any future National Transportation studies in Montana would be similar to the current structure. The role of consultants would be expanded, however, and small urban areas would be granted more opportunity to participate in future needs determinations. A means of accomplishing this may be through the formation of a committee representing this aggregate as a review body.

1-5 UNREPORTED TRANSPORTATION NEEDS ESTIMATES AND CAPITAL IMPROVEMENT PROGRAMS

In Montana, there were no major needs to be reported other than those covered by the improvement types included on the coding forms described in the various Manuals.

1-6 FUNDING CAPITAL AND NON-CAPITAL COSTS

The 1972 needs study involved primarily capital cost items, such as major facilities, equipment, and land for transportation services. In some instances, however, the funding of non-capital costs, such as salaries of operating personnel, administration, overhead, maintenance, fuel, etc., should be considered. This section deals with some of these considerations.

A. MASS TRANSIT

The difficulty in implementing systems of mass transit in major communities in Montana has been increased by the inability of communities to meet operational costs. Although the National Transportation Study does not allow the expenditure of federal matching funds on non-capital projects, comments

have been elicited from each urbanized area by the Governor's representative. It was the consensus of these urban planning groups that in order to come up with a truly feasible system of mass transit in communities of 200,000 population or less, some federal subsidization of operational costs is necessary.

Based on the desire of these communities to subsidize a portion of operational costs, we would make two recommendations which would serve to reduce the deficit between operating revenue and income:

1. Since the strongest determinants in transit ridership are the level of service offered and the quality of service offered, and since increased levels of transit ridership produce increased farebox revenues, federal subsidization of operational costs should be considered by U.M.T.A. when an increase in the level of quality of service is being effected by the community under a planned program of transit ridership increases. Such subsidization should continue only if a certain annual percentage of transit ridership occurs in the system.

2. The promotion of transit ridership through advertising and through the dissemination of information regarding routes and time schedules with the intent of increasing transit ridership should be federally-subsidized, based on a 2/3 federal - 1/3 local matching ratio.

B. HIGHWAYS

If there are sufficient federal funds available to meet all construction needs and a surplus that can be applied to maintenance and administration, consideration should be given to this additional federal support. If, however, there is a

shortage of federal funds for construction, it would be best to confine federal aid to construction, engineering and right-of-way acquisition and plan that the state will finance administration and maintenance, as is the present practice.

As more of the Interstate System is completed with its much greater surface width, traffic service signs, lighting and other appurtenances, it may be expected that the maintenance costs for this sytem will increase to the point that the state's financial resources will find it difficult to meet the obligations.

C. AIRPORTS

Revenue sources in the State of Montana for airport and airway facilities use are quite inadequate. Matching funds for use in federal projects come generally from two sources--the Montana Aeronautics Commission, and the local community. Aeronautics Commission funds are derived from a one cent per gallon tax on aviation fuels sold in the state and are becoming insignificant at an alarming rate. The Airport and Airways Development Act of 1970 has virtually precluded increasing this source of matching funds through any of the normal means (additional fuel tax, aircraft property tax, head tax, etc.). Because of the gradual decline of state moneys for airport construction, communities have necessarily relied more heavily on local revenues for construction, with the result that revenue bonds for these projects are increasingly difficult to sell to the voter.

In implementing the Airport and Airway Development Act of 1970, the Federal Aviation Administration has established guidelines for requisites for the certification which are, in the case of the smaller air carrier airports, somewhat unnecessary and will prove to be extremely expensive to implement.

(Specifically, the crash fire equipment costs and the continuing costs of maintenance and operation). Most airports, as they exist today, operate on incomes which barely meet expenses. The additional operating expense represented by this crash fire rescue equipment places a particular burden on the small air carrier airports which do not have a broad base from which to draw additional income. For these reasons, consideration should be given to federal assistance in meeting the additional operating costs required through certification.

1-7 TRANSPORTATION PLANNING AND REGULATION

1-7.1 TRANSPORTATION PLANNING PROCESS

Transportation planning in Montana in the past has generally been confined to studies of individual transportation modes within limited geographic areas. The National Transportation Study has therefore been the first attempt at overall multi-modal planning in Montana. Since this was a first attempt, it became necessary to establish a study structure which would include participation of all transportation agencies on both the state and local levels. It was also necessary to assemble and correlate all transportation plans and to elicit transportation policy on both levels. The time allowed to complete these tasks was minimal, so the reliance on existing data became essential.

It is anticipated that future studies would be based on an overall statewide comprehensive plan now in its initial stages of preparation. As a continuing project, it would also be desirable to develop statewide standards for roads, air terminals, urban mass transit and other facilities.

These standards would be established on a state or regional basis and would act as a consistency factor in reporting needs. The would be used only for reporting need and not necessarily have to be the adopted standards of the local units of

government. It would also be desirable to obtain a commitment on future levels of federal funding in order that plans might be more realistic. The need to include railroads in a total transportation framework would also seem essential in future statewide transportation planning.

The comprehensive transportation plans and transit plans that were available for the three urbanized areas were adequate for this study and were used extensively. Transportation plans were done either by the state or by consultants under the supervision of the State Highway Commission. Other studies completed for small urban areas by consultants under Department of Housing and Urban Development grants and under agreements with the cities were used to some degree, but were not usually in sufficient detail for this study. It has also been very difficult to obtain participation from officials in our small urban areas that has been reiterated throughout this study as being mandatory, or at least desirable. Small urban areas in Montana cannot afford the necessary staff to accomplish detailed planning, and they, therefore, rely on the state or consultant under HUD grants to aid them in planning processes.

A comparison of the projections are as follows:

	Appendix A	Est. 1990 Pop. State	Source of State Estimate
Billings	107,000	151,000	Comprehensive Plan* 1968
Great Falls	102,000	120,000	Comprehensive Plan** 1969
Missoula	77,000	85,000	Comprehensive Plan* 1967

* Clark, Coleman & Repeiks, Consultants, Seattle, Washington

**Small, Cooley & Associates, Consultants, Denver, Colorado

1-7.2 AIRPORT SYSTEMS PLANNING

Overall system planning is the logical approach to airport and airway construction at the state level; however, the resulting information will be much more meaningful if adequate time has been allowed to gather accurate and complete input material.

1-7.3 TECHNOLOGY IMPACTS ON PLANNING

Although technological advances affect all aspects of transportation planning, they seem to have a more significant impact in the planning of airports and airways; for example, many smaller communities in Montana have, in the past, experienced a situation wherein runway construction/improvements were designed to accommodate an aircraft which the serving airline indicated it would continue to use. A very short time after completion of construction, however, technology had placed into production aircraft which the airlines then felt were the logical choice for future equipment purcahses (i.e., Boeing 737). The airlines then began phasing out their older equipment around which the airport was designed, and the communities were faced with paying for a new airport or runway which would no longer accommodate the type of aircraft which the serving airlines intends to use.

In most cases recently there has been a maximum time span of three years from the drawing board concept until the time that the aircraft is actually placed into production and use. This makes airport design an extremely precarious "trade".

1-7.4 REGULATION OF TRANSPORTATION

State and federal regulatory practices are not a major factor in the efficiency or inefficiency of urban public transportation in Montana except for the

constraints placed on federal funds relating to the funding of capital projects only; however, the thinking involved in regulatory practices is occasionally narrow to the extent that unrealistic burdens are placed upon certain segments of the aviation industry. An example is the Civil Aeronautics Board restriction placed upon third level air carriers which will not allow them to operate aircraft exceeding a maximum gross weight of 12,500 pounds. Compliance with this regulation is one of the major barriers to a financially solvent third level operation. Using an aircraft of this size results in a continual lack of passenger seats or cargo space, or both. It would seem that a more realistic method of regulation would be on a passenger seat basis, for instance.

1-8 COMMENTS ON THE NEEDS STUDY

The Montana Department of Planning and Economic Development was delegated major coordination and review responsibility in preparation for this study, and is satisfied that the data assembled for Montana represents a realistic overview of Montana's transportation needs, and that this assessment of needs was adequate to accomplish capital improvements programming under the guidelines contained in the various study manuals. The Department of Planning and Economic Development felt, however, that future studies of this nature in Montana should concentrate to a greater degree on establishing a more consistent base for making needs determinations. These determinations should be based on a statewide comprehensive transportation plan, including overall transportation standards. This Department feels, however, that the current National Transportation Study represents a valuable first step, in that it opens the way for continued statewide and national multi-modal transportation planning.

The Montana Highway Commission was of the opinion that the highway segment of the needs study appears to be adequate for the purpose it was intended, providing so-called "second generation" needs and "stop gap" improvements are added by

DOT to the classified systems before the study is submitted to Congress. The states were not allowed to include these needs in the estimate of costs.

The needs for local roads and streets, as developed by the mass analysis procedures outlined in Manual B, are not compatible with needs developed for the classified systems. Local needs include total needs for the 20-year period and are based on the cost of the improvement amortized over the average life of the improvement. It should also be noted that costs on the local systems were based on recommended construction standards that are generally higher than those used by the local jurisdictions in Montana.

If this needs study is updated within the next two years as now planned, the state will certainly consider taking a 100 percent sample on the arterial systems in order to expedite long-range priority programming. It is also strongly suggested that more time be allowed for the update study. It is unrealistic to expect the states to complete a study of this magnitude within a period of one year or less.

The only adjustments made to data submitted to the state occurred in major program 04 (airports) within the small urban area aggregate. Needs were initially determined for each community within this aggregate through interviews with airport officials. To increase consistency in reporting needs, the needs of several communities within this aggregate were adjusted at the state level before an aggregate of needs was prepared. The communities involved were informed of these adjustments and concurred with the state in this direction.

The only allocation of federal funds to Montana that appeared unreasonable was in the area of Mass Transit. In funding capital costs of mass transit in Montana, it was noted that funds under both high and low funding levels proposed in Appendix D of Manual A seemed to be well in excess of capital funds required to meet all mass transit needs. Excess funds for mass transit in Montana amounted

to $15.4 million at the low funding level and $33.4 million at the high funding level as shown below:

EXCESS MASS TRANSIT FUNDS

Federal Funding Alternative	Time Period	Excess Funds (Millions)
1	1	4.4
1	2	11.0
		15.4
2	1	9.1
2	2	24.3
		33.4

Letters of comment by mayors of communities are contained in the Appendix.

QUESTIONNAIRE

NOTE: This questionnaire is not meant to be returned, but is meant as a guide to many questions we hope to answer in future interviews.

NOTE: The following questions should be answered based on January 1, 1970, and projected answers on these questions are needed for 1975, 1980 and 1990.

1. What month and year did the airport open for regular air carrier service?
2. What percentage of all operations are "large aircraft" operations?
3. What is the largest aircraft (critical design) that the airport handles on a regular basis?
4. How many aircraft operations do you have in the peak hour?
5. What is the landing area capacity in operations per peak hour?
6. What is the passenger terminal capacity in number per peak hour?
7. How many annual tons of air cargo does the airport handle?
8. How many tons of air cargo go through the terminal in the peak hour?
9. What is the capacity of air cargo in tons per peak hour that the terminal can handle?
10. What is your airport ground access in person trips per peak hour?
11. What is your ground access capacity in person trips per peak hour?
12. What is your auto parking capacity?
13. What are your needs in operations per hour in relation to your basic configuration? What is the cost of facilities required to meet these needs?
14. What are the passenger terminal needs in passengers per hour? What is the cost of such facilities required to meet these needs?
15. What are the cargo terminal building capacity needs in tons per hour? What is the cost of facilities required to meet these needs?
16. What other terminal area improvements are needed? What are their costs?
17. What is your auto parking capacity need? What is the cost of such?
18. What other airport improvements are needed? What is the cost of such?

AIRCRAFT OPERATIONS (ANNUAL)

	1970	1975	1980	1990
Billings	94,403	210,300	533,100	752,449
Bozeman	35,000	52,000	68,100	84,650
Browning	0	0	7,000	18,000
Butte	30,000	40,600	55,700	68,550
Glasgow	38,100	50,400	61,100	72,600
Glasgow AVCO	900			
Glendive	16,500	33,795	50,990	83,492
Great Falls	77,957	137,700	213,600	281,421
Havre	2,500	4,954	7,405	12,310
Helena	41,400	51,900	79,600	98,700
Kalispell	35,700	47,200	64,900	79,500
Lewistown	35,600	47,100	64,800	79,400
Miles City	20,600	27,200	37,400	45,800
Missoula	100,087	176,600	332,500	528.206
Sidney	28,800	38,000	51,400	62,700
West Yellowstone	7,700	10,200	14,100	17,700
Wolf Point	4,900	11,490	15,802	20,952

Source: TAP Predictions

PASSENGER ENPLANEMENTS

	1970	1975	1980	1990
Billings	88,445	214,615	273,015	350,000
Bozeman	20,000	107,000	198,000	370,000
Browning	0	0	3,000	12,000
Butte	26,470	55,765	74,140	92,000
Glasgow	2,150	5,000	6,600	8,000
Glasgow AVCO	0	0		
Glendive	830	1,700	2,565	4,200
Great Falls	85,495	204,280	259,530	335,000
Havre	715	1,417	2,118	3,521
Helena	14,365	46,630	59,405	78,000
Kalispell	3,880	13,750	21,000	31,000
Lewistown	1,370	3,000	4,970	5,300
Miles City	1,475	2,900	3,946	5,200
Missoula	29,425	101,720	132,225	175,000
Sidney	1,255	2,600	3,699	5,100
West Yellowstone	3,035	24,000	38,000	60,000
Wolf Point	725	1,700	2,338	3,100

Source: TAP Predictions

LARGEST AIRCRAFT CRITICAL DESIGN

	1970	1975	1980	1990
Billings	B707	DC-10	DC-10	B747
Bozeman	B727	DC-10	DC-10	B747
Browning				
Butte	B727	B727	DC-10	DC-10
Glasgow	Twin Otter	Twin Otter	B737	B737
Glasgow AVCO				
Glendive	Twin Otter	Twin Otter	Twin Otter	Twin Otter
Great Falls	720B	B747	B747	B747
Havre	Twin Otter	Twin Otter	Twin Otter	Twin Otter
Helena	B727	DC-10	DC-10	DC-10
Kalispell	Fairchild F-27	B737	B737	B727
Lewistown	Twin Otter	DC-3	DC-3	DC-3
Miles City	Twin Otter	Convair 580	Convair 580	Convair 580
Missoula	B727	B747	B747	B747
Sidney	Twin Otter	Twin Otter	Convair 580	Convair 580
West Yellowstone	B737	B727	DC-10	DC-10
Wolf Point	Twin Otter	Twin Otter	Convair 580	Convair 580

Source: Montana Aeronautics Commission & Managers

LARGE AIRCRAFT OPERATIONS (Percent in Peak Hr.)

	1971	1975	1980	1990
Billings	21%	21%	21%	21%
Bozeman	28	30	30	35
Browning	0	0		
Butte	15	16	17	18
Glasgow	5	5	6	8
Glasgow AVCO				
Glendive	5	5	5	5
Great Falls	15	16	15	10
Havre	4	4	4	4
Helena	18	22	30	40
Kalispell	3	4	4	5
Lewistown	6	6	6	6
Miles City	5	5	5	5
Missoula	7	9	12	18
Sidney	5	5	5	5
West Yellowstone	43	43	43	43
Wolf Point	10	10	10	10

Source: Airport Managers

AIRCRAFT OPERATIONS (PEAK HOUR)

	1970	1975	1980	1990
Billings	60	70	80	100
Bozeman	20	25	30	40
Browning	0	0	15	25
Butte	20	25	30	40
Glasgow	15	22	30	40
Glasgow AVCO				
Glendive	3	6	8	13
Great Falls	62	69	86	117
Havre	5	7	10	15
Helena	45	50	55	65
Kalispell	6	8	10	20
Lewistown	12	14	16	18
Miles City	5	7	9	12
Missoula	20	25	30	40
Sidney	8	10	12	17
West Yellowstone	20	25	30	45
Wolf Point	4	5	5	6

Source: Interviews with managers, MAC, and FAA regulations.

Note: Figures that were given for Billings-Helena-etc. are scaled down (o.e., we did not count touch and go operations).

PASSENGERS THROUGH TERMINAL

(Number in Peak Hour)

	1970	1975	1980	1990
Billings	354	858	1092	1400
Bozeman	80	428	792	1480
Browning	0	0	10	50
Butte	106	223	297	368
Glasgow	9	20	26	32
Glasgow AVCO	0	0		
Glendive	3	7	10	17
Great Falls	342	817	1038	1340
Havre	3	6	8	14
Helena	58	187	238	312
Kalispell	16	55	84	124
Lewistown	5	12	16	21
Miles City	6	12	16	21
Missoula	118	407	529	700
Sidney	5	10	15	20
West Yellowstone	12	96	152	240
Wolf Point	3	6	9	12

Source: Predictions based on passenger enplanements using .004 figure given in Dept. of Trans. manual.

PASSENGER TERMINAL CAPACITY

(Number in Peak Hours)

	1970	1975	1980	1990
Billings	400	450	500	600
Bozeman	75	300	300	300
Browning	0	0	50	50
Butte	106	400	400	400
Glasgow	25	30	36	48
Glasgow AVCO	0	0		
Glendive	12	15	18	24
Great Falls	120	800	800	800
Havre	12	12	12	24
Helena	45	50	150	250
Kalispell	24	60	100	150
Lewistown	12	12	24	24
Miles City	12	12	24	24
Missoula	150	613	1075	2000
Sidney	12	30	30	40
West Yellowstone	12	36	250	250
Wolf Point	12	12	12	12

Source: Interviews with managers of airports.

AIR CARRIER CARGO

(Annual tons)

	1970	1975	1980	1990
Billings	2000	2500	3000	4000
Bozeman	120	850	1550	2900
Browning	0	0	0	0
Butte	270	410	540	800
Glasgow	27	40	56	81
Glasgow AVCO	0	0		
Glendive	18	26	35	65
Great Falls	531	997	1789	4486
Havre	9	13	18	27
Helena	250	300	1200	5000
Kalispell	10	29	46	70
Lewistown	9	11	14	18
Miles City	6	10	15	24
Missoula	460	690	920	1380
Sidney	9	14	18	22
West Yellowstone	0	0	0	0
Wolf Point	78	83	89	100

Source: Airport managers.

Ground Access Capacity

(Person trips in peak hours)

	1970	1975	1980	1990
Billings	750	925	1125	1500
Bozeman	350	475	600	600
Browning	0	0	400	400
Butte	300	700	700	700
Glasgow	400	400	400	400
Glasgow AVCO				
Glendive	500	500	500	500
Great Falls	900	900	2400	2400
Havre	200	200	200	200
Helena	500	500	2000	2000
Kalispell	400	400	400	400
Lewistown	500	500	500	500
Miles City	500	500	500	500
Missoula	500	500	1000	1000
Sidney	400	400	400	400
West Yellowstone	400	400	400	400
Wolf Point	200	200	200	200

Source: Airport managers.

AIRPORT GROUND ACCESS

(Person Trips in Peak Hrs.)

	1970	1975	1980	1990
Billings	500	625	750	1000
Bozeman	75	160	250	2400
Browning	0	0	40	200
Butte	250	300	575	900
Glasgow	30	35	40	60
Glasgow AVCO				
Glendive	20	30	40	60
Great Falls	700	800	1400	2000
Havre	20	25	30	40
Helena	90	100	300	500
Kalispell	48	165	252	372
Lewistown	30	35	40	50
Miles City	25	37	50	70
Missoula	300	450	600	900
Sidney	10	20	25	30
West Yellowstone	48	384	608	960
Wolf Point	20	25	30	40

Source: Airport managers.

AUTO PARKING CAPACITY

(in hundreds)

	1970	1975	1980	1990
Billings	3	3	4	5
Bozeman	1	3	5	8
Browning	0	0	1	2
Butte	2	3	5	7
Glasgow	1	1	1	1
Glasgow AVCO				
Glendive	1	1	2	2
Great Falls	4	7	10	14
Havre	2	2	2	2
Helena	1	2	3	4
Kalispell	1	2	3	5
Lewistown	1	1	1	1
Miles City	2	3	4	5
Missoula	6	8	9	12
Sidney	2	2	2	2
West Yellowstone	2	3	4	6
Wolf Point	1	1	1	1

Source: Airport Managers

Sidney

1970	None	
1970-75	Fire & Rescue	$ 30,000
	Terminal Bldg.	20,000
	Hangar	30,000
	Ramp Improvement	10,000
1975-80	Grounds	10,000
1980-90	Taxiway	100,000

Glasgow

1970	Tie Downs & Pavement	8,000
	Runway Strengthening	750,000
1970-75	Fire & Safety	35,000
	Snow Plow	15,000
	Taxiway Lighting	12,000
	Other Lighting	5,000
1975-80	Hangars (T-type)	50,000
	Sewer System	5,000
1980-90	Cargo Terminal	30,000
	Passenger Terminal	80,000
	Parking	8,000

Lewistown

1970	Fire & Rescue	$ 30,000
1970-75	Taxiway - ½ mile	60,000
1975-80	Overlay	200,000
	Terminal Bldgs.	60,000
	T-Hangar	40,000
1980-90	Runway lights replacements	20,000
	Perimeter Fence	5,000

Billings

1970	Overlay Taxiway	250,000
1970	Terminal Additions	2,000,000
1970-75	Extend Taxiways & Runways	400,000
	Parallel Taxiway	300,000
	Parking	100,000
1975-80	Overlay Ins. Runway	700,000
	Storm Sewer System	600,000
	Lighting (Runway & Taxiway)	100,000
	Fire Station	300,000
	Cargo Bldg.	200,000
	Land Purchase	200,000
1980-90	New airport site & complex	25,000,000
	Rapid Transit System	3,000,000

Miles City

1970	Extension & Rebuilding Runway	250,000
	Fire & Rescue	210,000
1970-75	Taxiways & Apron	250,000
	Overlay of Runway	90,000
1975-80	Fire & Rescue	20,000
	New Terminal	500,000
	Cargo Building	80,000
	Parking	40,000
1980-90	Runway Ext. & Rebuilding	250,000
	Grounds (fencing, etc.)	30,000

Glendive

1970	None	
1970-75	Terminal Area Improvements	50,000
	Fire & Rescue	30,000
1975-80	Taxiway	60,000
	Apron	60,000
1980-90	Cargo Terminal	30,000

Havre

1970	Fire & Safety	$ 20,000
1970-75	Runway Overlay	200,000
	Hangars (already funded)	25,000
1975-80	New Runway	1,000,000
	Taxiway & tie down	100,000
1980-90	Terminal - Passenger + Cargo	100,000
	Sewer System	10,000

Helena

1970	None	
1970-75	Lighting (Runway & Taxiway)	150,000
	Runway Land	100,000
1975-80	Runway Extension	1,500,000
	Taxiway	600,000
	Ramps	600,000
	New Passenger Terminal	1,000,000
	Parking	100,000
	Fire & Safety + Equipment	250,000
1980-90	Cargo Building	100,000
	Parallel Runway	250,000

Wolf Point		
1970-75	Terminal	$ 100,000
	Parallel Taxiway	100,000
	Fire & Safety	35,000
1975-80	Lighting	50,000
	Runway Overlay Extension	200,000
	ILS - F&E	
1980-90	None	
Missoula		
1970	Taxiway	300,000
	Ramp Space	300,000
	Lighting	100,000
1970-75	Terminal Area	500,000
	Safety Equipment	300,000
1975-80	Runway Lengthening	700,000
	Clear Zones	600,000
1980-90	Tie Down Land Purchase & Construction	200,000
	New Terminal & Area	2,500,000
	New Cargo Area	500,000
	Access Road	2,000,000
Great Falls		
1970	Land	80,000
	Runway	2,000,000
	ILS	240,000
1970-75	Runway	2,700,000
	Apron	2,000,000
	Fire & Safety	250,000
	Passenger Terminal	3,400,000
	Parking	238,000
	Utilities	250,000
1975-80	Cargo Area Bldg.	200,000
	Access Roads	319,000
	Secondary Road	1,500,000
	Snow Removal	30,000
1980-90	Land	100,000
	Parallel Runway	1,000,000
	Snow Removal	60,000

West Yellowstone		
1970 needs	None	
1970-75	Safety	
	Lights	$ 300,000
	Runway Overlay	135,000
	Extend	600,000
1975-80	Terminal Area	1,500,000
1980-90	Tower	2,000,000
	Extend Runway	2,000,000
East Glacier		
1980-90	Landing Area	500,000
	Terminal	100,000
Bozeman		
1970 needs	Fire & Safety	300,000
1970-75	New or Bigger Terminal	1,500,000
	Ramp Space	250,000
	Access Road	150,000
	Parking	50,000
1975-80	Runway Extension & Taxiway	250,000
	Maintenance Bldg.	20,000
1990	Cargo Building	100,000
Butte		
1970 needs	Overlay	600,000
	Fire's Safety	100,000
1970-75	Parking	20,000
	Terminal Improvements	65,000
	Parallel Taxiway	400,000
1975-80	Land Purchase	60,000
	Cargo Terminal	
1980-90	Tie Down	40,000
	Overlay	600,000

Kalispell

Present	Runway Extension	200,000
	Parallel Taxiway	400,000
1970-75	Runway Lighting & Replacement	100,000
	Other Lighting	60,000
	Terminal	100,000
	Fire Safety	50,000
1975-80	Taxiway Lighting	50,000
	Runway Extension & Taxiway	200,000
	Land Acquisition	50,000
	Runway Strengthening	400,000
1980-90	New Terminal	1,500,000
	Tie Down	50,000

LANDING AREA CAPACITY

	1970	1975	1980	1990
Billings	150	150	60	60
Bozeman	60	60	60	60
Browning	0	0	40	40
Butte	60	60	60	60
Glasgow	50	50	50	50
Glasgow AVCO	200	200	200	200
Glendive	40	40	40	40
Great Falls	140	140	140	240
Havre	40	40	40	40
Helena	60	60	80	80
Kalispell				
Lewistown	50	50	50	50
Miles City	50	50	50	50
Missoula	60	50	120	120
Sidney	50	50	50	50
West Yellowstone	40	40	50	55
Wolf Point	40	40	40	40

Source: FAA regualtions, interviews with managers, MAC.

Note: Many were scaled down due to ~~dimination~~ elimination of touch & go operations.

MARIO MICONE, MAYOR
CITY OF BUTTE

AUGUST 13, 1971

STATE DEPARTMENT OF PLANNING AND
ECONOMIC DEVELOPMENT
CAPITOL POST OFFICE
HELENA, MONTANA 59601

ATTENTION: MR. BYRON ROBERTS

DEAR MR. ROBERTS:

I OFFER THE FOLLOWING THOUGHTS AS INPUT FOR YOUR 1972 TRANSPORTATION NEEDS STUDY REPORT. I AM PRESUMING THAT FOR ALTERNATIVE I AND II THE LEGISLATIVE CONSTRAINTS ON THE USE OF FEDERAL FUNDS WILL REMAIN ABOUT THE SAME, THAT EXISTING OPERATING AGENCIES WILL CONTINUE IN THEIR PRESENT FUNCTIONS, AND THAT THE BUTTE URBAN AREA WILL GROW TO A POPULATION OF 52,000 BY 1991 AS PROJECTED BY THE CITY-COUNTY PLANNING BOARD.

ALTERNATIVE I. ASSUMING THAT FUNDING IS AUTHORIZED AT 50% OF ITS PRESENT LEVEL UNDER EXISTING PROGRAMS:

AT THIS LEVEL OF FUNDING WE WOULD NOT BE ABLE TO MAINTAIN THE EXISTING STATE AND FEDERAL ROAD SYSTEM WITHIN THE BUTTE AREA. THE SAME IS TRUE FOR THE AIRPORT FACILITY. THERE IS NO WAY THAT SUFFICIENT LOCAL REVENUES CAN BE GENERATED TO OFFSET THE REDUCED FEDERAL FUNDING LEVEL.

ALTERNATIVE II. ASSUMING 100% OF EXISTING AND PROJECTED FUNDING IS AUTHORIZED UNDER EXISTING PROGRAMS:

AT THIS LEVEL OF FUNDING WE WOULD BE ABLE TO MAINTAIN THE EXISTING STATE AND FEDERAL ROAD SYSTEMS WITHIN THE BUTTE AREA. WE WOULD ALSO BE IN A POSITION TO UPGRADE EXISTING SUBSTANDARD PORTIONS OF THE STATE AND FEDERAL SYSTEMS AS WELL AS THE LOCAL ARTERIAL NETWORK TO A STANDARD CONDITION. BECAUSE OF PROGRAMATIC UNCERTAINTIES IN THE ADMINISTRATION OF FEDERAL FUNDS UNDER THE EXISTING SYSTEM, IT IS DOUBTFUL THAT THE COMMUNITY WOULD SEEK TO UNDERTAKE ANY MAJOR NEW PROJECTS SUCH AS MASS TRANSIT, AIRPORT RELOCATION OR NEW ROADWAYS.

ALTERNATIVE III. ASSUMING 100% OF PROJECTED FUNDING IS AUTHORIZED ON A BLOCK GRANT MATCHING BASIS AND LEGISLATIVE CONSTRAINTS ARE REMOVED:

AT THIS LEVEL OF FUNDING, AND WITH THE CONSTRAINTS OF THE CATEGORICAL USE OF FEDERAL FUNDS REMOVED UNDER A BLOCK GRANT SYSTEM, WE WOULD BE ABLE TO TAKE MAJOR STEPS IN IMPROVING AND MODERNIZING OUR TRANSPORT SYSTEMS. A "BELTWAY" SYSTEM OF THOROUGHFARES COULD BE INITIATED AS ENVISIONED IN OUR MASTER PLAN. AN IN-DEPTH STUDY OF OUR MASS TRANSIT NEEDS AND SOLUTIONS COULD BE COMMISSIONED AND, BASED UPON THE STUDY, IMPLEMENTATION COULD PROCEED. AIRPORT RELOCATION, IF DEEMED FEASABLE BY ON-GOING STUDIES, COULD PROCEED. IN SHORT, BLOCK GRANT FUNDING, WOULD ALLOW COMMUNITIES OF OUR SIZE TO SPONSOR PROJECTS WHICH ARE NOW, UNDER EXISTING CONSTRAINTS, NEXT TO IMPOSSIBLE TO ACHIEVE.

I HOPE THAT THE ABOVE THOUGHTS WILL ASSIST YOU IN YOUR REPORT. IF YOU REQUIRE ANY FURTHER INFORMATION OR ASSISTANCE, PLEASE DO NOT HESITATE TO CALL UPON US.

YOURS VERY TRULY,

Mario Micone

MARIO MICONE, MAYOR
CITY OF BUTTE

MM:PC

WILLARD E. FRASER
MAYOR

Office of The Mayor
City of Billings
Montana

June 3, 1971

Mr. R. Byron Roberts
Department of Planning and
Economic Development
Capitol Station
Helena, Montana 59601

Hello:

We are in agreement that the presently proposed and going operation of buses in the City of Billings is but a stop-gap operation, and that the City must soon face up to its responsibility, and go full scale into the ownership and operation of the City's buses if we are to provide adequate, and frequent bus service for our people.

No city in America has been able to long secure bus service through private enterprise, and Billings is no exception. Presently we are providing a substantial subsidy to keep the present bus system in operation, but it - again, is but a stop-gap operation. Too long have we Americans used the word 'Socialism' as only a shibboleth to keep from facing up to realities brought about by our Industrialized-Urbanized Society, plus its mobility that has so changed our way of life.

Our community is full of people who need adequate bus service, most particularly our older and younger citizens. Billings, as most of the Rocky Mountain communities is full of elderly, lonely people often without any means of transportation, living on meager pensions, their children relocated in far off communities, and with now no way to visit their friends, doctors, hospitals, churches, or to shop. Also, there are many, many students attending Central, Eastern, Rocky, and other schools with likewise no means of transportation either to school, or to attend the numerous places of youth concentration and recreation.

Are we not forcing our elderly to become isolated from society, and in their lonliness - become medical, sociological, and psychological problems that in too many instances could be prevented if only they had the means of getting out into the mainstream of their desires for companionship. Only last week I had an elderly woman call, and in tears told me that her husband, in one of our nursing homes, wants her to come see him each day, but that a taxi costs $5.00, yet with her meager pension she just cannot afford to taxi and still eat. (Who uses the taxi's? It is the very poor in all too many instances.)

During my travels in Europe last fall, I made a comprehensive study of the European solution to the bus problem. In every single instance, cities of any size in every country own and operate their transportation systems and thereby provide a fine service for all their citizens. They have a practice that I would put into operation in Billings, that when an individual reaches the age of 65 (in some cities it is 68 to 70, but 65 in the main) that individual is invited to City Hall, where the Mayor awards him with various honors for having been a proud citizen, and hands him or her a free pass that enables them to hence forth, for the rest of their lives, ride the City's buses free of charge. (Some cities restrict this to non-heavy traffic hours, but not all.)

Burgomaster's told me that they had found that this kept the elderly as active, vibrant members of the city, for they no longer were housebound. Two Mayors told me that they felt it had actually increased bus revenues, as so often families would say, "as long as it costs nothing to take grandma or grandpa along, why don't we all go on a picnic at the zoo or park today, or on similar family-type excursions".

Our last Legislature provided a law whereby the City, or the County can each assess a one mill levy to be used to provide facilities etc. for the elderly. One mill presently produces $55,700 in Billings. Now I submit that there is no single service that our city could provide that would serve ALL, I repeat <u>all</u> our older citizens, quite so wonderfully well as would a free pass to ride city buses, but only if the city provides adequate, frequent bus service covering the whole community.

I propose, if it be legally possible - and I have asked Jim Thompson to make an examination of this law, to ask the City Council at the on-coming Budget writing to provide a one mill levy for the next two or three years (it must be levied each year) to purchase and operate a comprehensive bus system for the City of Billings. The buses to operate on regular, frequent schedules covering all the city. The buses would be of a modern, light, mostly of the mini-type, low stepped, and available to all who would ride as paying passengers - again, only those over 65 to be provided with free pass honorariums. Consider what this could mean to alleviate traffic congestion, and to our business and professional men.

In addition to the possibility of one mill levy, there are now programs enacted by the Congress where under the Mass Transportation Act, municipalities can obtain (possibly) additional financial help from the Federal Government to set up a system of Mass Transportation in Billings. It is my intention to attend the Mayor's Conference in Philadelphia this summer to fully explore this possibility, for that is where much information can be obtained. (It was such from attendance that I opened the doors whereby the City obtained a $690,000. grant a few years ago to complete our storm sewer trunk line.)

I deem this placing of the City into the Bus Business to be one of our prime needs, and I am asking advise and assistance of the Transit Committee to proceed in this operation, as well as help from the City Council and citizens generally.

Are we to continue to be so 'youth oriented' that we are blinded to the pressing needs of our oldsters? All too soon today's youth will be tomorrow's oldsters, and what we do today in providing such a Free Bus Pass will be to their advantage tomorrow.

Please give me your thoughts -

Signed,

_____

City of Missoula

MISSOULA, MONTANA 59801

OFFICE OF THE MAYOR

August 9, 1971

Mr. Lloyd F. Meyer
Department of Planning & Economic
Development
Capitol Post Office
Helena, Montana 59601

Dear Mr. Meyer

In responding to the Department of Transportation's inquiry regarding theoretical implementation of mass transit grants between 1974 - 1978 and 1979 - 1990, the City of Missoula has decided to focus primarily on ideas, particularly innovative ideas, rather than on financing procedures. Therefore, we shall deal briefly with finances before going on to more extensive development of approaches to transportation in this area. Presently, the city is allowed to levy 1.5 mills for transportation. In 1971, with a mill worth $25,078 this would amount to $ 37,617. It is projected that by 1974, the mill worth will be $28,209, thereby generating $42,313.50 and in 1990, a mill of $51,000 would provide $76,500. Due to the increasingly urban character of the Missoula area, it is felt that need may eventually generate sufficient support for a transit district. Passage of a transit district would be more easily attained by providing free service (i.e. supported by allowable millage and federal grants rather than fares) in at least the initial stages of mass transit development. Missoula residents would thus be encouraged to experiment with using a mass transit system, and if quality service were provided, to support its expansion. Thus, it is felt that through procedures existant in 1971, Missoula should be able to finance its matching share of 1/3 to help develop and provide for mass transit in the area.

It seems most logical to concentrate on the City of Missoula, the central business district and its surrounding areas for purposes of the first phase (1974 - 1978) of Missoula's mass transit activity. Transportation between the CBD and the University would also fall within the range of earliest development. It is felt that smaller "mini" buses (20 passengers) would be best suited to Missoula's needs. We would like to explore the feasibility of using electricity or some other low-pollutant source of power for these vehicles. They might be multiple-use (school, elderly, hospital visiting) as well as operating on regularly scheduled routes, and the routes should be as flexible as possible. As mentioned earlier, we feel that a fare-free transit system at this stage of development would be a major

contributor to the success of mass transit in Missoula. This is totally dependent, of course, upon the proposed DOT matching grants for maintenance as well as for capital expenditures.

An existing transit study for Missoula (Clark, Coleman, & Rupeiks, Inc., 1969) recommends three bus routes. This might be expanded to approximately five. In the latter stages of our first phase, we would like to initiate open shuttle carts to service the CBD-Government core, allowing the buses to provide the link between intermediate distance points and the shuttle circuits.

Before going on to the long range transportation possibilities for the Missoula area, it is appropriate to stress the importance we place upon other alternatives to the automobile. We are especially interested in using our flood plains and secondary thoroughfares to tie together a bicycle trail and foot path system. Some of the few things necessary to make these modes successful are: 1.) Provision of bicycle access across the river (e.g. reconstruction of the Van Buren Bridge for bicycle and foot travel, slinging of bicycle-foot spans in connection with presently existing spans), 2.) Development of flood plain paths and designation of foot routes that would most safely and pleasantly avoid heavily travelled thoroughfares, while allowing the pedestrian direct routes, 3.) Development of braille trails, 4.) Closing of some streets to all vehicular traffic except bicycles, 5.) Possibly eventual relocation of the Milwaukee Road tracks so this railroad might share facilities with the Burlington Northern. This would free the south side of the river from the University to Orange Street for trail and recreational park development as well as centralizing Missoula's rail operations at one terminal.

In terms of the longer range ideas for transportation, we feel Missoula must look far beyond its own municipal limits. For this reason, we think, perhaps, of reinstituting passenger use of the Bitterroot and Blackfoot spur lines for commuting purposes. This, along with the shuttle cart system could indicate good use of the present Burlington Northern depot as a transportation hub. Space could also be provided there for some bicycle parking, with the shuttle carts enabling the cyclists to work or shop in the CBD.

If some permanent type of mass transit is installed at this time, it is thought that the mini-buses used to serve the central part of the city in the earlier years can be implemented to connect low-volume outlying areas with mass transit terminals on a callbox-dispatch basis. By coupling the

commuter trains with the mass transit system and taxi-buses, not only the Missoula urban area, but also parts of the market-trade area would be served.

Leaving the matter of passenger transit momentarily, we would also like to address the problem of freight traffic. We have mentioned the Burlington Northern depot as a passenger transit hub. This leaves freight, ideally to be received and dispatched from a central terminal port authority located near the airport and to be shared by air, land and rail companies.

This paper is merely a crude draft, an initial collection of ideas to provide for our growth and development. Time was not available to gather cost estimates nor to determine feasibilities, yet we would like to emphasize again our conviction that a well-developed initial operation is the key to success in this community. For this reason, we strongly favor the plan presented to us as "Option II" since it would help provide us with more means to develop our system at the outset.

Sincerely,

George Turman

By: Candace C. Fetscher
Candace C. Fetscher,
Resource Coordinator

CCF/ks

cc: Thomas N. Crowley
David G. Crow

Date Due

[redacted] MAY 1 4 '75					
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